

# SONY®

## ROUTING SWITCHER SYSTEM

ROUTING SWITCHER

### DVS-128

DIGITAL AUDIO ROUTING SWITCHER

### DVS-A3232

DIGITAL VIDEO ROUTING SWITCHER

### DVS-V1616

HD ROUTING SWITCHER

### HDS-V3232

DIGITAL VIDEO ROUTING SWITCHER

### DVS-V3232B/V3232M

### DVS-V6464B/V6464M

MULTI BIT RATE ROUTING SWITCHER

### HDS-X3400/X3600/X3700

16-SOURCE CONTROL UNIT

### BKS-R1601

X-Y CONTROL UNIT

### BKS-R3202/R3210/R3220

32-SOURCE CONTROL UNIT

### BKS-R3203

UNIVERSAL CONTROL UNIT

### BKS-R3204/R1608/R3209

### BKS-R1618/R3219

SOURCE AND DESTINATION CONTROL UNIT

### BKS-R3205

8-DESTINATION CONTROL UNIT

### BKS-R3206

RS-422A REMOTE ROUTING SWITCHER

### DVS-RS1616

TIME CODE ROUTING SWITCHER

### DVS-TC3232

ANALOG AUDIO ROUTING SWITCHER

### BVS-A3232

ANALOG VIDEO ROUTING SWITCHER

### BVS-V3232

MULTI DISPLAY CONTROL UNIT

### BKS-R1607/R1617/R1621

MULTI BUS CONTROL UNIT

### BKS-R3216

ROUTING SWITCHER CONTROLLER

### BKPF-R70/R70A

DIGITAL VIDEO 8 × 2 SELECTOR BOARD

### BKPF-300

ANALOG VIDEO 8 × 2 SELECTOR BOARD

### BKPF-301

DIGITAL AUDIO 8 × 2 SELECTOR BOARD

### BKPF-350

ANALOG AUDIO 8 × 2 SELECTOR BOARD

### BKPF-351

## INSTALLATION MANUAL FOR SYSTEM SETUP

1st Edition (Revised 5)

IBM and AT are registered trademarks of International Business Machines, Inc.  
Windows is a registered trademark of Microsoft Corporation.  
Windows NT is a trademark of Microsoft Corporation.  
Intel 80486SX is a trademark of Intel Corporation.

# Table of Contents

## Manual Structure

Purpose of this manual .....	5
Contents .....	5
Related manuals .....	6
DVS-128/HDS-X3000 Series and DVS-V3232M/V6464M .....	8

## 1. System Overview

1-1. Digital Routing Switcher System .....	1-1
1-2. System Control .....	1-3
1-2-1. Specifications and functions of control port .....	1-3
1-2-2. S-BUS control .....	1-5
1-2-3. 9-pin remote control .....	1-7
1-2-4. Connection of control terminal .....	1-9
1-2-5. Control of monitor S-BUS system .....	1-9

## 2. Functions

2-1. Main Functions of Router System .....	2-1
2-2. Built-in Controller .....	2-2
2-3. Matrix Sizes .....	2-2
2-4. Number of Levels .....	2-2
2-5. Number of Units .....	2-2
2-6. Protect Function .....	2-3
2-7. Secret Function .....	2-3
2-8. Crosspoint Disable Setting Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232) .....	2-3
2-9. Password Function (DVS-V3232B/V6464B, BKPF-R70, HDS-V3232) ...	2-3
2-10. Setting the Input/Output Name (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232) .....	2-4
2-11. Virtual Mapping Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232) .....	2-6
2-12. Free Assignment Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232) .....	2-7
2-13. Monitor Function (BKDS-V3292B only) .....	2-8
2-14. Tie Line Management (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232) .....	2-10
2-15. Phantom Function .....	2-11
2-16. Self-Diagnosis Function .....	2-12
2-17. Route Function .....	2-13
2-18. Enhanced Restriction of Selected Block (BKS-R1607/R3210 only) .....	2-14

### 3. Control Terminal

3-1.	Selecting the Control Terminal .....	3-1
3-2.	Control Terminal Display .....	3-2
3-3.	System Status Screen .....	3-3
3-4.	Menu Screen .....	3-4
3-4-1.	Menu screen of the primary station .....	3-4
3-4-2.	Menu screen of the secondary station .....	3-5
3-4-3.	Menu screen of the primary station on monitor S-BUS .....	3-9
3-4-4.	Menu screen of the secondary station on monitor S-BUS .....	3-9
3-5.	Setting Screen .....	3-11

### 4. Setup Procedure

4-1.	Outline .....	4-1
4-2.	Preliminary Information Before Installation .....	4-2
4-3.	Preparation Before Setup .....	4-3
4-4.	Basic Setup Procedures .....	4-4
4-5.	Flowchart of Setup .....	4-24
4-6.	Setting Up BKPF-300/301/350/351 .....	4-25

### 5. System Settings

5-1.	Setting Items of the Primary Station .....	5-1
A :	DISPLAY CONTROL AREA .....	5-1
A :	DISPLAY UNIT LOCATION .....	5-1
B :	SET SOURCE/DEST TYPE .....	5-2
C :	SET DESTINATION NAME .....	5-2
D :	SET SOURCE NAME .....	5-4
E :	SET LEVEL TABLE .....	5-6
F :	SET ACTIVE UNIT NUMBER .....	5-7
G :	UPDATE BACKUP CONTROLLER .....	5-7
H :	SET GLOBAL PHANTOM .....	5-8
J :	NAME STYLE .....	5-10
K :	RESET TO DEFAULT TABLE .....	5-11
K :	DEFAULT TABLE .....	5-11
L :	SET PHYSICAL ASSIGNMENT .....	5-11
M :	SET INHIBIT TABLE .....	5-13
N :	SET DESCRIPTION NAME GROUP .....	5-14
O :	SET TIE LINES .....	5-16
P :	CHANGE PASSWORD .....	5-18
Q :	CHANGE CROSSPOINT .....	5-18
R :	CALL SECONDARY STATION .....	5-20
S :	SELECT INDICATION COLOR .....	
(Except for BKPF-R70, HDS-V3232) .....		5-20

T : SET CLOCK .....	5-20
U : SELECT REMOTE .....	5-21
V : SELECT WARNING DISPLAY .....	5-22
W : SYSTEM STATUS LOG .....	5-23
X : DISPLAY S-BUS COMMUNICATION .....	5-23
Y : DISPLAY TABLE (Except for HDS-V3232) .....	5-24
Z : SET UNIT DETECTABLE .....	5-24
5-2. Setting Items of the Secondary Station .....	5-25
A : SET UNIT LOCATION .....	5-25
G : UPDATE BACKUP CONTROLLER .....	5-26
H : SET PHANTOM TABLE .....	5-27
K : RESET TO DEFAULT TABLE .....	5-29
K : DEFAULT TABLE .....	5-29
L : COPY TABLE DATA .....	5-29
M : SET MONITOR FUNCTION (Except for HDS-V3232) .....	5-30
N : SET PANEL TABLE (BKS-R1601/R3202/R3203) .....	5-30
N : SET PANEL TABLE (BKS-R1607/R1608/R3204/R3205/R3209/ R3210/R1617/R1618/R3219/R3220/R1621) .....	5-31
N : SET PANEL TABLE (BKS-R3206/R3216) .....	5-32
O : SET AVAILABLE DESTINATION (BKS-R3202/R3206) .....	5-33
O : SET AVAILABLE DESTINATION (BKS-R1607/R3210/R3216/ R1617/R1618/R3219/R3220/R1621) .....	5-33
R : SET ROUTE (BKS-R1607/R1608/R3209/R3210/R3216/R1617/ R1618/R3219/R3220/R1621) .....	5-36
S : DISPLAY DESCRIPTION NAME .....	5-37
U : SELECT REMOTE PROTOCOL .....	5-38
V : DISPLAY UNIT STATUS (Except for HDS-V3232) .....	5-39
Y : DISPLAY TABLE DATA (Except for HDS-V3232) .....	5-39
Y : SET DISPLAY MODES (BKS-R3216/R1617/R1618/R3219/ R3220/R1621) .....	5-40
Z : SELECT SDI FORMAT (Except for HDS-V3232) .....	5-41
Z : SET PANEL STATUS (BKS-R3204/R3205/R3206) .....	5-42
Z : SET PANEL STATUS (BKS-R1607/R1608/R3209/R3210/ R3216/R1617/R1618/R3219/R3220/R1621) .....	5-43
Z : SELECT CONNECTION (DVS-RS1616 only) .....	5-46
Z : SWITCHING FIELD (HDS-V3232 only) .....	5-46
5-3. Setting Items of the Primary Station on Monitor S-BUS (BKDS-V3292B only) .....	5-47
F : SET ACTIVE UNIT NUMBER .....	5-47
M : SELECT MONITOR FUNCTION .....	5-48
R : CALL SECONDARY STATION .....	5-48
5-4. Setting Items of the Secondary Station on Monitor S-BUS (BKDS-V3293B only) .....	5-49
M : SET AVAILABLE MONITOR LINE (DVS-V3232B/V6464B + BKDS-R3292B) .....	5-49
L : COPY TABLE DATA <MONITOR MENU> .....	5-49
N : SET PANEL TABLE (BKS-R1607/R1608/R3204/R3205/R3209/R3210) <MONITOR MENU> .....	5-50
S : DISPLAY DESCRIPTION NAME <MONITOR MENU> .....	5-51

	Z : SET PANEL STATUS (BKS-R1607/R1608/R3204/R3205/R3209/R3210) <MONITOR MENU> .....	5-52
5-5.	Backup of Setting Data .....	5-54
5-6.	When Data is Lost .....	5-54
5-7.	Initialization of Table Data .....	5-55
	5-7-1. Initializing Procedure and Corresponding Items .....	5-55
	5-7-2. Default Values Initialization .....	5-56
5-8.	Signal Switching Timing .....	5-57

## 6. Confirmation of function

6-1.	Outline .....	6-1
6-2.	Function Check Format .....	6-2
6-3.	How the Self-Diagnosis Items are Related .....	6-3
6-4.	Diagnosis Items for Each Model .....	6-4
6-5.	Function Check Process .....	6-5
6-6.	Function Check with Control Terminal .....	6-6
	6-6-1. System status screen after power on .....	6-6
	6-6-2. System status screen during the system operation .....	6-7
	6-6-3. Menu item [W: SYSTEM STATUS LOG] .....	6-7
	6-6-4. Contents and countermeasures of the error messages .....	6-8

## 7. Change Information on DVS-128/HDS-X3000 Series and DVS-V3232M/V6464M

7-1.	Outline (DVS-128/HDS-X3000 Series) .....	7-1
7-2.	Changed Menu (Primary Station Setting Items) .....	7-2
	Initial screen (DVS-128/HDS-X3000 Series) .....	7-2
	A : DISPLAY CONTROL AREA (DVS-128/HDS-X3000 Series) .....	7-3
	B : SET SOURCE/DEST TYPE (DVS-128/HDS-X3000 Series) .....	7-3
	E : SET LEVEL TABLE (DVS-128/HDS-X3000 Series) .....	7-4
	O : SET TIE LINES (DVS-128/HDS-X3000 Series) .....	7-4
	S : SET SOURCE ASSIGNMENT (DVS-128/HDS-X3000 Series) .....	7-6
7-3.	Changed Menu (Secondary Station Setting Items) .....	7-6
	N : SET PANEL TABLE (HDS-X3400) .....	7-6
	V : DISPLAY UNIT STATUS (DVS-128) .....	7-7
	V : DISPLAY UNIT STATUS (HDS-X3000 Series) .....	7-8
	Z : SET SDI FORMAT (HDS-X3000 Series) .....	7-9
	Z : SELECT SDI FORMAT (DVS-V3232M/DVS-V6464M) .....	7-11

<b>Appendix</b> .....	A-1
-----------------------	-----

## Manual Structure

---

### Purpose of this manual

This is the Installation Manual (software) for the Sony routing switcher system (it is described as “router system” in this manual).

It contains information on the initial settings of the software when installing the units making up the digital router system.

This manual is intended for system and service engineers. But operators can also refer to it when setting and changing the system.

This manual is supplied with the following switchers.

DVS-V1616	DVS-V3232B	DVS-V6464B	DVS-RS1616
DVS-TC3232	DVS-A3232	BVS-V3232	BVS-A3232
HDS-V3232	DVS-V3232M	DVS-V6464M	DVS-128
BKPF-R70/R70A			
HDS-X3000 series (HDS-X3400/X3600/X3700)			

Refer to installation manual and/or maintenance manual supplied with each unit for information on installing the hardware.

---

### Contents

The following is a summary of the sections for understanding the contents of this manual.

#### 1. System Overview

This section outlines the basic structure of the digital router system and control mechanism using the S-BUS.

#### 2. Functions

This section explains the main functions of the digital router system.

#### 3. Control Terminal

This section explains the key operation and image display of the control terminal. Also describes how to use the personal computer as the control terminal.

#### 4. Setup Procedure

This section explains the basic setting of DVS-V3232B/V6464B or HDS-V3232 as a primary station.

#### 5. System Settings

This section explains the setting menus of the primary station and the secondary station and how to set each item in the menus, in detail. Also it explains how to backup the table data.

#### 6. Confirmation of Function

This section explains the error messages and how to check the operations of the system after completing setting.

#### 7. Change Information on DVS-128/HDS-X3000 Series and DVS-V3232M/V6464M

Describes the change information accompanied with addition of functions and specification change.

---

## Related manuals

In addition to this installation manual for system setup, the following manuals are also available for the main units making up the system.

### (1) DVS-V3232B/V6464B/V3232M/V6464M/128

- **Operation Manual**

**(supplied with the DVS-V3232B/V6464B/V3232M/V6464M/128)**

This manual explains the notes on operating, specifications, locations and functions.

- **Installation Manual (Hardware)**

**(supplied with the DVS-V3232B/V6464B/V3232M/V6464M/128)**

This manual contains information on setting up the hardware when installing.

- **Maintenance Manual Part 1**

**(supplied with the DVS-V3232B/V6464B/V3232M/V6464M/128)**

This manual contains information on the periodic maintenance and servicing information necessary for the principal block and board replacement.

- **Maintenance Manual Part 2**

**(not supplied with the DVS-V3232B/V6464B/V3232M/V6464M/128)**

This manual contains detailed information on the maintenance and servicing and their parts (adjustment, board layout, schematic diagram, detailed parts list and so on).

If this manual is required, please contact to Sony's service organization.

- **Protocol Manual**

**(not supplied with the DVS-V3232B/V6464B/V3232M/V6464M/128)**

This manual contains information on the protocols used for controlling the routing switcher system.

The following manuals are available for protocols used to support.

Please contact to Sony's service organization to obtain a copy of the manual.

S-BUS PROTOCOL AND COMMAND SPECIFICATIONS

(S-BUS remote terminal control protocol)

ROUTING SWITCHER SYSTEM PROTOCOL AND SPECIFICATIONS

(Sony cart protocol)

- **DVS-V3232B/V6464B Series Technical Manual\*<sup>1</sup>**

**(not supplied with the DVS-V3232B/V6464B/V3232M/V6464M/128)**

This manual contains technical outlines of a digital routing switcher system primary consisting of DVS-V3232B/V6464B information items.

If this manual is required, please contact to Sony's service organization.

\*1 : Common with DVS-V3232M/V6464M.



**(2) DVS-V1616/A3232/RS1616/TC3232, BVS-V3232/A3232, BKS-R1607/  
R1608/R3209/R3210**

- **Operation Manual (supplied with each unit)**

This manual explains the notes on operating, specifications, locations and functions of each unit.

- **Maintenance Manual (supplied with each unit)**

This manual contains information on the installation, maintenance, and servicing of the unit and its parts (replacement, block diagram, adjustment, board layout, schematic diagram, detailed parts list and so on).

**(3) BKS-R1601/R3202/R3203/R3204/R3205/R3206**

- **Operation and Maintenance Manual (supplied with each unit)**

This manual contains information on the proper operation and application of the unit, installation, maintenance, and servicing of the unit and its parts (replacement, block diagram, adjustment, board layout, schematic diagram, detailed parts list and so on).

**(4) BKPF-R70/R70A, BKPF-300/301/350/351**

- **Operation Manual (supplied with each unit)**

This manual explains the notes on operating, specifications, locations and functions of each unit.

- **Installation Manual (supplied with each unit)**

This manual contains information on setting up the hardware when installing each unit.

- **Maintenance Manual (not supplied with each unit)**

This manual contains detailed information on the maintenance and servicing of the unit and their parts (block diagram, adjustment, board layout, schematic diagram, detailed part list and so on).

**(5) HDS-V3232**

- **Operation Manual (supplied with the HDS-V3232)**

This manual explains the notes on operating, specifications, locations and functions of each unit.

- **Maintenance Manual Part 1 (supplied with the HDS-V3232)**

This manual contains information on the periodic maintenance of HDS-V3232 and servicing information necessary for the principal block and board replacement.

- **Maintenance Manual Part 2 (not supplied with the HDS-V3232)**

This manual contains detailed information on the maintenance and servicing of HDS-V3232 and their parts (board layout, schematic diagram, detailed part list and so on).

If this manual is required, please contact to Sony's service organization.

#### **(6) HDS-X3400/X3600/X3700**

- **Maintenance Manual Part 1 (supplied with HDS-X3000 series)**

This manual describes how to install and maintain the HDS-X3000 series, and contains information on primary services (how to replace the main blocks and boards, and other information).

- **Maintenance Manual Part 2 (available on request)**

This manual describes the information that premises the service board parts replacement (board layouts, schematic diagrams and detailed parts list) of the HDS-X3000 series.

If this manual is required, please contact your local Sony Sales Office/Service Center.

#### **(7) BKS-R3216/R1617/R3219**

- **Operation Manual (supplied with each unit)**

This manual explains the notes on operating, specifications, locations and functions of each unit.

- **Maintenance Manual (available on request)**

This manual contains information on the maintenance and servicing of the unit and its parts (replacement, block diagram, adjustment, board layout, schematic diagram, detailed parts list and so on).

---

#### **DVS-128/HDS-X3000 Series and DVS-V3232M/V6464M**

Because functions are added and specifications are changed in the DVS-128, there are several descriptions in section 1 to section 6 of this manual that do not agree with the DVS-128. Refer to “Change information on DVS-128/HDS-X3000 series and DVS-V3232M/V6464M” that is described in section 7 for the concrete change information of the DVS-128.

For the contents of the DVS-V3232M/V6464M other than what are described above, please read the “DVS-V3232B/V6464B” for “DVS-V3232M/V6464M”.

# Section 1

## System Overview

### 1-1. Digital Routing Switcher System

The system consists of the following units.

- Routing Switcher  
(DVS-V1616/V3232B/V6464B/A3232/TC3232/RS1616, BVS-V3232/A3232, HDS-V3232)  
It switches signals according to the command from the remote control unit. Varied switchers are available for different types of signals used (serial digital video, digital audio, time code, RS-422A, etc.)
- Remote Control Unit  
(BKS-R1601/R3202/R3203/R3204/R3205/R3206/R1607/R1608/R3209/R3210/R3216/R1617/R3219/R3280/R3281)  
It switches signals and displays the name of the selected signal.
- Control Terminal  
It sets the configuration and operation of the router system. It monitors the system in operation and displays the messages.

A unique control protocol called S-BUS (Sony serial bus) is used for controlling the switcher system. With this protocol, all control signals are transmitted by using one 75  $\Omega$  coaxial cable. The transmission path is called the "S-BUS data link". Units on the S-BUS data links transmit data through time-divided bi-directional communication.

Other than the S-BUS, the 9-pin remote control for RS-422A can also be used for this system. But the system will function best when the S-BUS control is used. For DVS-V3232B/V6464B and HDS-V3232, both protocols can be used together.

With cascade connection, several sets of routing switchers of DVS-V6464B/V6464M can be connected together to expand the input/output matrix size. The inputs and outputs of DVS-V6464M can be expanded up to 1024.

To operate this system, specified settings (making of table data) must be previously carried out using the control terminal.

---

## Software Versions

This manual is intended for systems consisting mainly of the DVS-V3232B/V6464B digital video routing switchers and units loading the following software versions and above.

When units other than these are used, some terminal displays will be different and some functions cannot be used. Therefore, please contact to Sony's service organization to upgrade the version of your software.

### Note

Use the same version software for the same models of routing switcher or remote control units on the S-BUS data link. If different versions are used in one system, faults may occur.

The software versions described in this manual are the following.

- Digital video routing switcher DVS-V1616 : V3.00
- Digital video routing switcher DVS-V3232B : V2.10
- Digital video routing switcher DVS-V6464B : V2.10
- Digital audio routing switcher DVS-A3232 : V3.00
- RS-422A remote routing switcher DVS-RS1616 : V3.01
- Time code routing switcher DVS-TC3232 : V3.01
- Analog video routing switcher BVS-V3232 : V3.01
- Analog audio routing switcher BVS-A3232 : V3.01
- HD digital video routing switcher HDS-V3232 : V2.10
- 16-source control unit BKS-R1601 : V3.10
- X Y control unit BKS-R3202 : V3.10
- X Y control unit BKS-R3210 : V1.10
- 32-source control unit BKS-R3203 : V3.10
- Universal control unit BKS-R3204 : V3.11
- Universal control unit BKS-R1608 : V1.10
- Universal control unit BKS-R3209 : V1.10
- Source and destination control unit BKS-R3205 : V3.11
- 8-destination control unit BKS-R3206 : V3.11
- Multi display control unit BKS-R1607 : V1.10
- Routing switcher controller BKS-R70 : V1.01
- Digital video 8×2 selector board BKPF-300 : V1.00
- Analog video 8×2 selector board BKPF-301 : V1.00
- Digital audio 8×2 selector board BKPF-350 : V1.00
- Analog audio 8×1 selector board BKPF-351 : V1.00

### Note

To install the single status display unit BKS-R3280/R3281, please refer to the operation and maintenance manual supplied with it.

## 1-2. System Control

### 1-2-1. Specifications and functions of control port

The DVS-V3232B/V6464B and HDS-V3232 digital video routing switcher is equipped with four kinds of remote ports REMOTE 1 (S-BUS), REMOTE 2 (9-pin), REMOTE 3 (25-pin), and REMOTE 4 (monitor S-BUS). Other switchers are equipped with three kinds of remote ports excluding REMOTE 4.

The specifications and functions of the control ports are as follows.

#### REMOTE 1 BNC 75 $\Omega$ 47 k $\Omega$ terminated

Protocol	S-BUS control
Data Transfer Method	BI-PHASE SPACE
Data Transfer Speed	312.5 kbps/1250 kbps*1
Max Cable Length	500 m/125 m*1 (BELDEN 8281 cable or equivalent)
FCS Data	HDLC CRC-CCIT $\times^{16} + \times^{12} + \times^5 + 1$ Initial all high
Function	With this port the communication between the primary and secondary stations is performed. Remote control units, routing switchers and display units are connected to this S-BUS data link in order to perform system functions. REMOTE 1 is sometimes simply called "remote" for units having this remote port only. To distinguish the S-BUS using REMOTE 1 from the monitor S-BUS (REMOTE 4), which will be described later, it is called standard S-BUS or simply S-BUS.

#### REMOTE 2 D-sub 9-pin

Protocol	RS-422A Flow control, 38.4 kbps, 100 $\Omega$ /10 k $\Omega$ This port accepts three kinds of protocols.
----------	---

Model Protocol	DVS-V6464B DVS-V3232B HDS-V3232	DVS-A3232	DVS-RS1616 DVS-TC3232 BVS-V3232 BVS-A3232	DVS-V1616 BKPF-R70
CART PROTOCOL	Yes	Yes	No	Yes
AUDIO MIXER PROTOCOL *2	Yes	Yes	Yes	No
PRODUCTION SWITCHER PROTOCOL	Yes	No	No	No

Function	With this port communication between two units is performed. A switcher, DME, etc. are connected to this port. The functions of the router system using this RS-422A port depend on a superior controller so that the system may not have so many functions as S-BUS system's.
----------	--

\*1: The specifications of BKPF-R70. When BKPF-R70 is used, termination resistors are necessary at both ends of the cable. The cable cannot be checked for open circuit.

\*2: Known before as switcher protocol.

### REMOTE 3 D-sub 25-pin (MODEM side pin arrangement)

Protocol RS-232C, 9600 bps\*1, 8bit, No Parity, No check

**Function** With this port the communication between the primary station and the control terminal and the setting of the units are performed. It is recommended that the control terminal be always connected to the switcher set to the primary station, so that you can see error message of the communication circuit and operation condition of units.

Although distorted displays may be shown when a terminal with low access speed is used, does not mean that the routing system has failed. In this case, replace the control terminal by one with high access speed. If not, it will be necessary to guess the contents of the display on the screen.

### REMOTE 4 BNC 75 Ω 47 kΩ terminated

Protocol S-BUS control

Data Transfer Method BI-PHASE SPACE

Data Transfer Speed 312.5 kbps

Max Cable Length 500 m (BELDEN 8281 cable or equivalent)

FCS Data HDLC CRC-CCIT  $\times^{16} + \times^{12} + \times^5 + 1$  Initial all high

**Function** Remote port for the monitor S-BUS. It forms a S-BUS data link, different from REMOTE 1, and carries out communication between the primary and secondary stations for the monitor system (you cannot use this connector for the standard S-BUS). The data link consists of switchers, remote control units, display units, etc.

To control the monitor S-BUS, the optional monitor board BKDS-V3292B is required.

#### Note

The protocols of REMOTE 2 are selected using the control terminal connected to REMOTE 3.

\*1: The transfer speed of BKPF-R70 is 38400 bps.

## 1-2-2. S-BUS control

The S-BUS control is a remote control system. It has a simple connection structure and provides highly efficient communication. Multiple routing switchers and remote control units are connected to a single bus line to form a control network called the S-BUS data link. The units on this S-BUS data link communicate with each other using the S-BUS protocol, select the necessary data from the control data transmitted through the data link, and operate according to the data.

The routing switchers on the S-BUS data link are designated to a primary station which controls the whole system (only one unit is set as this) and secondary stations. The primary station receives the instructions from the secondary stations and makes adjustments for smooth communication. It also constantly monitors the system and detects communication errors and problems. In addition to adjusting and controlling communication, the primary station also switch crosspoints as another switcher does.

The S-BUS line is connected via the REMOTE 1 connector. Up to one line can be connected for BKPF-300/301/350/351, two lines for DVS-V1616, three lines for DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232, and four lines for other switchers. Always terminate unused connectors with 75  $\Omega$ .

### Features of S-BUS control system

The main features of the S-BUS control are as follows.

- LAN type control signal communication using one 75  $\Omega$  coaxial cable (S-BUS line).
- The coaxial cable can be extended to 500 m. (BELDEN 8281 cable or equivalent)
- The primary station can control up to 254 units (including the primary station)\*1 of routing switchers and remote control units using multiple S-BUS lines.
- Up to 128 units of routing switchers and remote control units can be connected to one S-BUS line. Without stopping the system, the switchers and remote control units can be connected to the S-BUS line or removed from it.
- The self-diagnosis results of the system can be monitored with the control terminal connected to the primary station.

### Basic configuration of S-BUS control

S-BUS control is configured as follows.

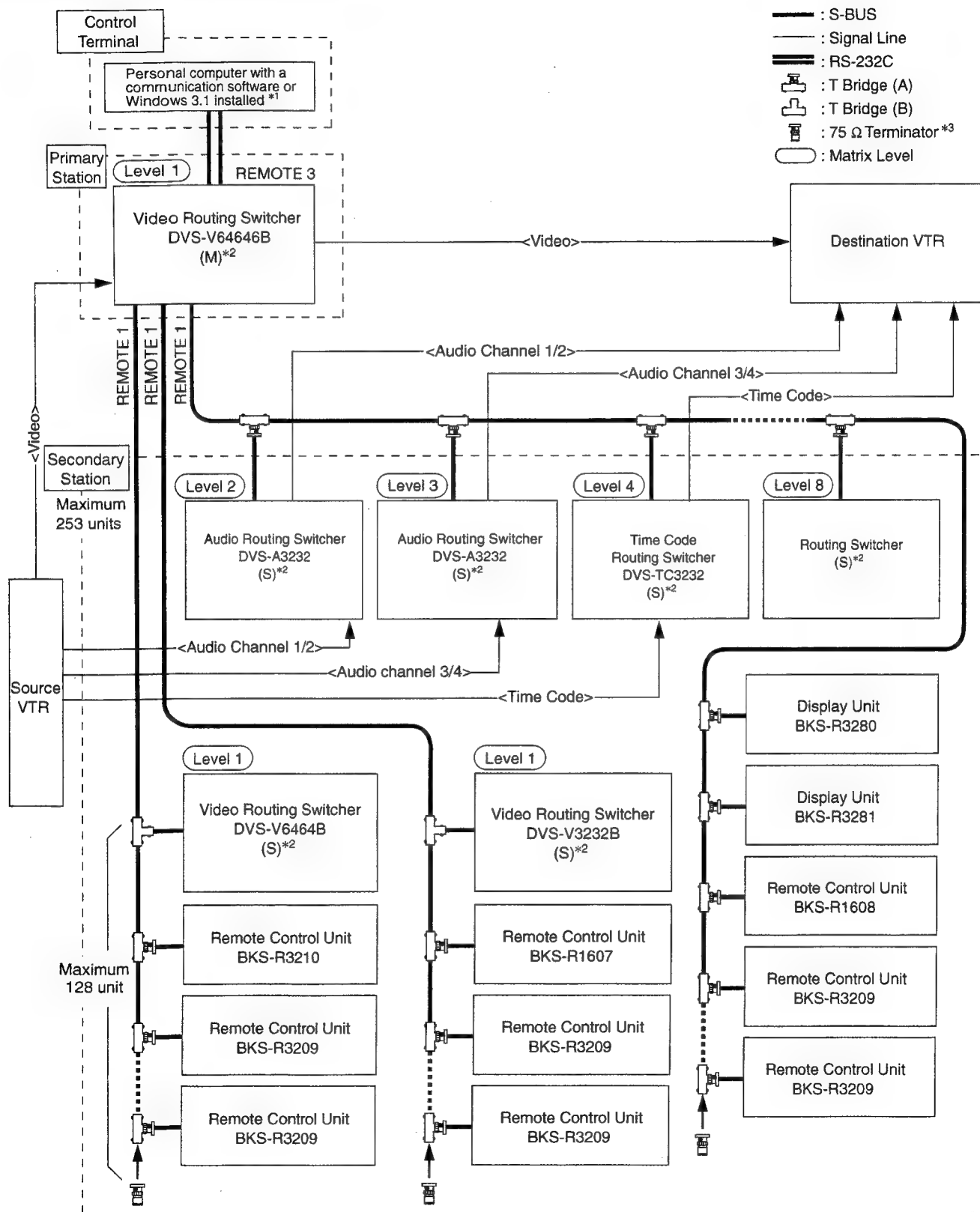
Name	Equipment	Quantity	Function
Primary station	Routing switcher (M)*2	1	Communication control in data link.
Secondary station	Remote control unit and routing switcher (S)*3	253 max.	Use data link in the time specified from the primary station.
Control terminal software	Personal computer with terminal	1	Setting needed for system configuration and displaying the status.

\*1 : When one of the BKPF-300 series is set in a primary station, it can control up to 30 units (including the primary station).

\*2 : It means a switcher which is set the M/S switch on CPU board to "M" position. In the case of BKPF-R70, the switch is set to "P" position.

\*3 : It means a switcher which is set the M/S switch on CPU board to "S" position.

### Example of S-BUS control system connection



Either one of the REMOTE 1 connectors of the secondary station routing switches can be used.

\*1: The function switch will be not working in the terminal mode of the Windows 95/NT.

\*2: (M) and (S) mean the setting of M/S switch on the CPU board.

\*3: Connect the 75 Ω terminators to the T type bridge of the last device on a S-BUS data link and to the unused REMOTE 1 connector.



### 1-2-3. 9-pin remote control

The Sony digital routing switcher can be controlled from external control units connected to the RE-MOTE 2 (D-sub 9-pin) using RS-422A. For DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232, the functions performed by 9-pin remote control, can especially be upgraded to a great extent. The following three kinds of 9-pin remote protocols can be used.

- Sony production switcher protocol
- Sony audio mixer protocol
- Sony cart protocol

#### Note

The protocol that can be used depends on the models (refer to Section 1-2-1).  
BKPF-R70 is controlled by Sony cart protocol only.

The DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232 can be switched between the “direct mode” in which they are controlled directly and to the “S-BUS conversion mode” in which cart protocol commands are converted to the S-BUS protocols.

In the direct mode, the switchers can be controlled individually. In the S-BUS conversion mode, up to 254 switchers on the S-BUS line (including the primary station) can be controlled.

For DVS-V3232B/V6464B/V1616/A3232 and HDS-V3232, the S-BUS and 9-pin remote control lines are connected to REMOTE 1 and 2 respectively and can be switched freely. Other switchers can be connected to either control line.

#### Notes

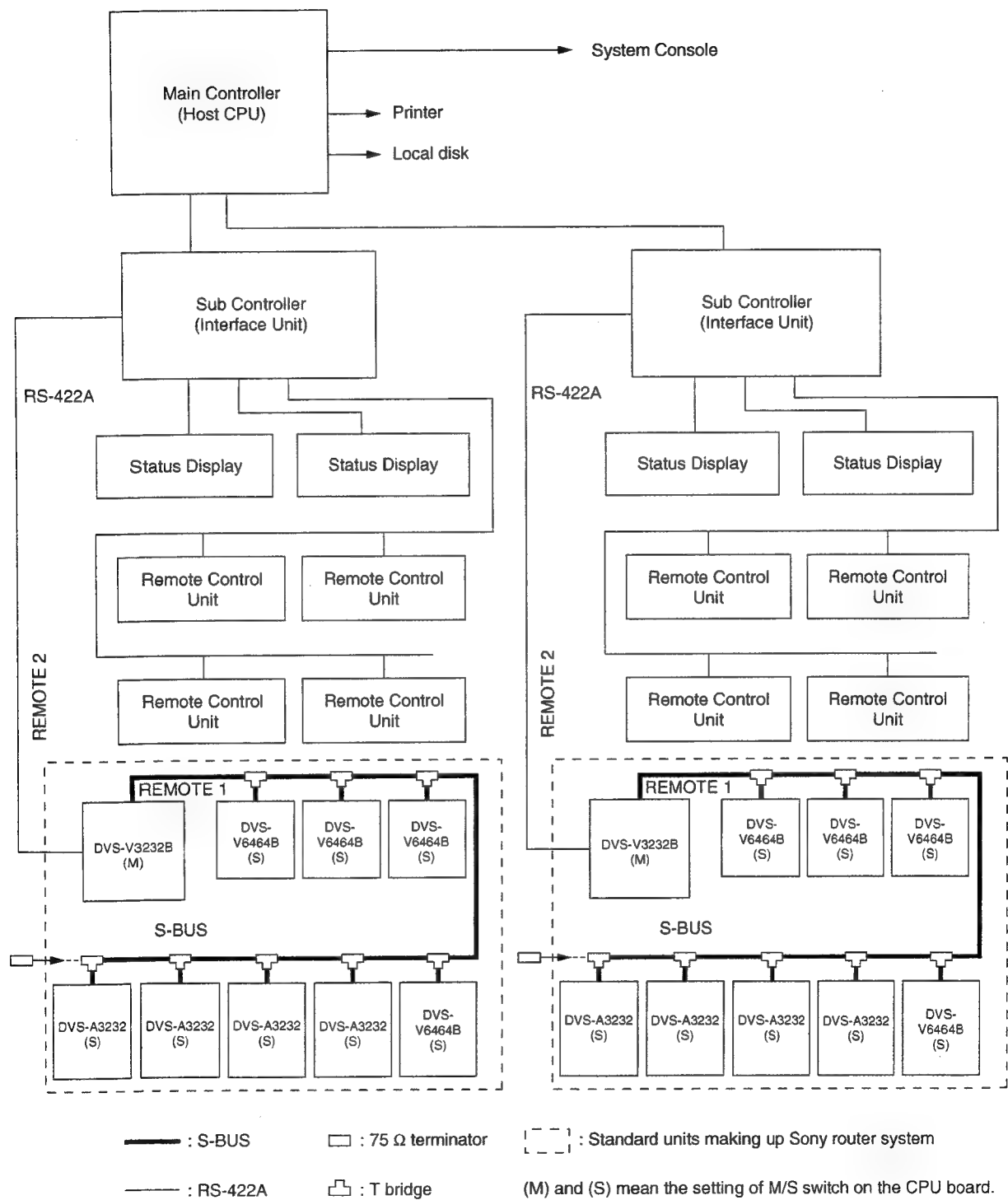
1. In the direct mode, the protect and secret functions set on the S-BUS protocol are not available.
2. In the S-BUS conversion mode, the “UA2” data specified by the cart protocol will be converted to the level values on S-BUS protocol.  
In this mode, the protect and secret functions set on S-BUS protocol are available. (However, these functions cannot be set on the 9-pin remote control and the contents of the setting cannot be checked, either.)
3. The number of input/output signals that can be controlled on each protocol is as follows.

Protocol		Control Area
Cart Protocol*1	Cart	1-16
	Cart plus	1-256
Audio mixer protocol		1-128
Production Switcher Protocol		1-127

4. When several DVS-V6464Bs are connected in a cascade and the input bus number is increased, if controlled by the 9-pin remote, there is the case no signal is output.  
To avoid such case, use the S-BUS conversion mode.

\*1 : There are two kinds of cart protocol due to the control area.  
Unless otherwise noted, “cart protocol” in this manual mean the cart plus protocol.

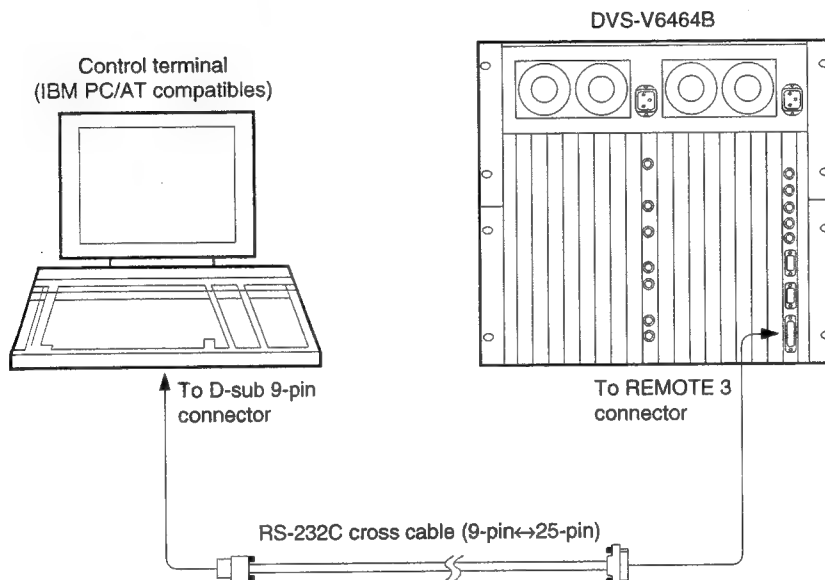
The following is an example of a 9-pin remote control connection.



### 1-2-4. Connection of control terminal

Connect the control terminal to the REMOTE3 (D-sub 25-pin) connector of the primary station as shown below. The control terminal is used for setting of the router system and for displaying the information of errors, problems, system status, etc. during operation.

Use the personal computer installing the terminal software as the control terminal of the router system.



#### Note

REMOTE 3 connector of BKPF-R70 and HDS-V3232 is D-sub 9-pin connector.

When BKPF-R70 or HDS-V3232 is set to the primary station, connect the control terminal to the unit by using the RS-232C cross cable.

The control terminal is not able to connect to the system which primary station is set to BKPF-300 series.

### 1-2-5. Control of monitor S-BUS system

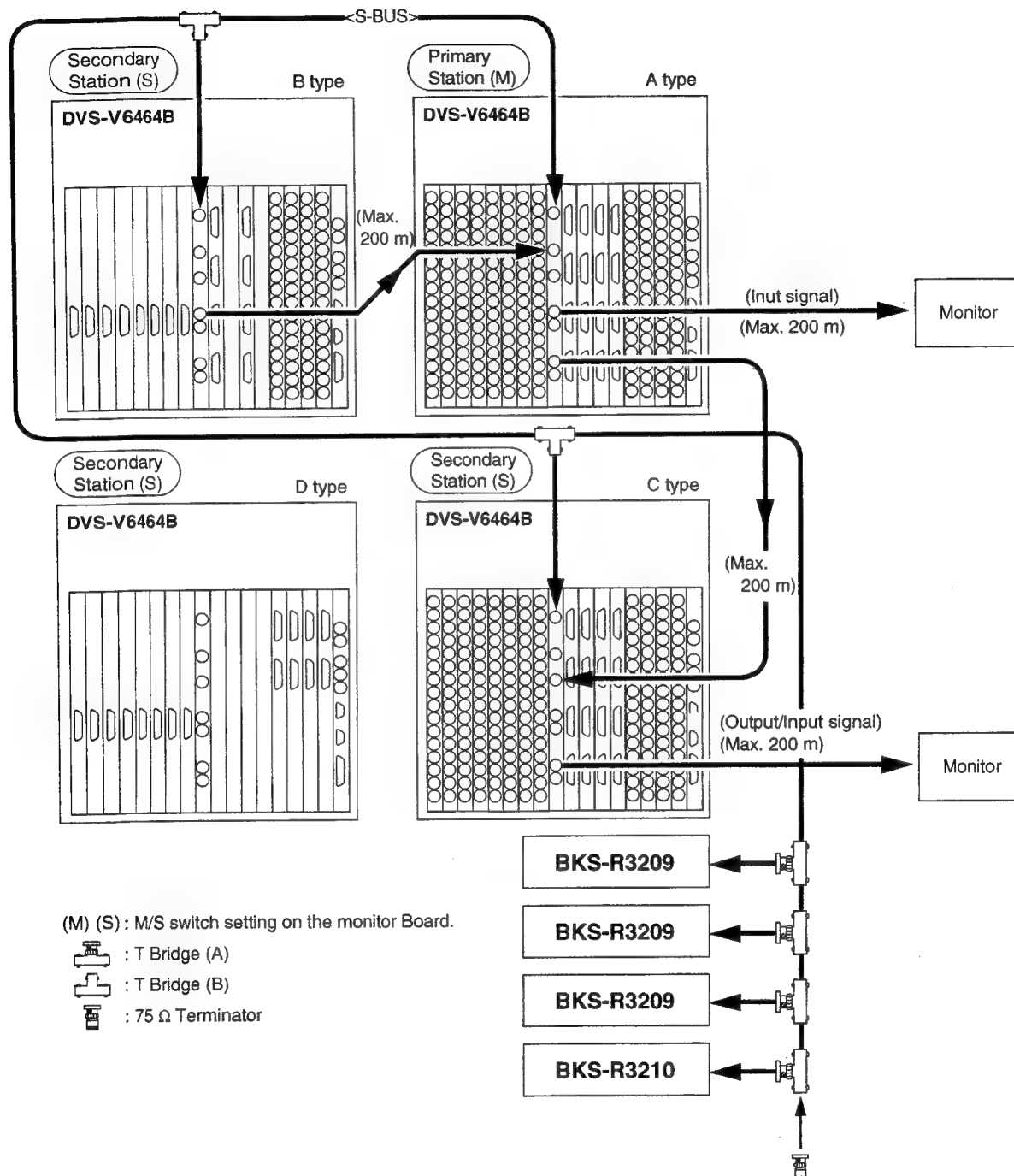
DVS-V3232B/V6464B is able to monitor all the input and output signals when the optional monitor board BKDS-V3292B is installed, whose CPU is used exclusively for monitoring. It forms a monitor S-BUS data link via the REMOTE4 connector.

In this manual, the monitor control line is called "monitor S-BUS" to distinguish it from the control line of the main S-BUS using for changing crosspoints. The main S-BUS is called "standard S-BUS" or simply "S-BUS". Excluding the system control, the monitor S-BUS has exactly the same protocol and communication format as that of the standard S-BUS.

The input monitor and output monitor can be either used separately or combined. They can be also connected in cascade. As the crosspoint control of the monitor is performed separately from the standard S-BUS control system, a primary station for the monitor S-BUS must be designated in addition to that set for the standard S-BUS.

The configuration of the monitor S-BUS is set with the control terminal connected to the primary station on the standard S-BUS.

The following shows one way of connecting the monitor S-BUS system.



## Section 2

### Functions

#### 2-1. Main Functions of Router System

- 1) The routing switcher is equipped with a system controller. It therefore does not require an additional controller for controlling the routing switchers.
- 2) By the cascade connection, up to  $512 \times 512$  crosspoints can be selected.
- 3) Up to 8 levels can be assigned.
- 4) Up to 254 units can be controlled in a system.
- 5) Each output signal can be protected so that they will not be switched by other control units. (Protect function)
- 6) Each input signal can be prohibited to be selected from all the control units. (Secret function)
- \* 7) The inputs that can be selected for each output can be limited. (Crosspoint disable setting function)
- \* 8) Password function
- \* 9) The either name of "Type + Number" or "Description" can be set for input/output connectors.
- \* 10) A crosspoint matrix can be mapped on a virtual matrix. (Virtual mapping function)
- \* 11) To each connector name, a different connector number can be assigned on each level. (Free assignment function)
- \* 12) Input and output signals can be monitored using the optional monitor board BKDS-V3292B. (Monitoring function)
- \* 13) You can enable the system to automatically select the signal lines between two routing switchers. (Tie line function)
- 14) You can simultaneously switch several crosspoints. (Phantom function)
- 15) The control terminal connected to the primary station will display the system status informations and error messages. (Self-diagnosis function)
- 16) When DVS-7000 is connected to the destination of DVS-V3232B/V6464B, the source name of the routing switcher is indicated on the DVS-7000. (Route function)
- 17) BKS-R1607 and BKS-R3210 can restrict the crosspoint block of selection for each remote control unit.

\* : DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232 only (BKPF-R70 and HDS-V3232 has no monitor function described "12").

DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232 outstanding offers new functions as a primary station. To get the best out of the system, we recommend that DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is used as a primary station.

BKPF-R70 switches the crosspoint at a highest speed in the four switchers by mounted RISC CPU.

The following outlines each function. (For details of how to set them, refer to the Section 5 "System Settings".)

## 2-2. Built-in Controller

The Sony digital routing switcher incorporates a system controller and therefore does not require a separate external controller. When several routing switchers are connected to the S-BUS, the CPU of the switcher set as the primary station will control the whole system.

## 2-3. Matrix Sizes

By the cascade connection, input and output signals can be expanded to form a large-scale of router system.

Maximum matrix sizes depend on the kind of switchers.

- DVS-V6464B : 512 inputs × 512 outputs
- DVS-A3232 : 256 inputs × 256 outputs
- DVS-TC3232 : 256 inputs × 256 outputs
- DVS-RS1616 : 128 inputs × 128 outputs (at 16 mode)  
256 inputs × 256 outputs (at 32 mode)
- BKPF-300/350 : 112 inputs × 2 outputs
- BKPF-301/351 : 32 inputs × 2 outputs (BKPF-301), 1 output (BKPF-351)

### Note

DVS-V1616/V3232B, HDS-V3232 and BVS-V3232/A3232 are not able to connect by the cascade.

## 2-4. Number of Levels

The router system has the capability to control the different types of signal at the same time. This is enabled by the level setting.

The router system can handle the signals such as video, audio, timecode and the RS-422A remote control signal. These signals are switched by their exclusive switchers. The signals that perform switching are allocated in the different layers. These layers are called levels.

In the router system, the different numbers are given to the input and output signals of the respective layers that enable switching of various signals at the different levels simultaneously.

Example: Video can be set to level 1, audio to level 2, etc.

Up to eight levels can be set for one system.

The levels are set in the menu item [E : SET LEVEL TABLE].

## 2-5. Number of Units

Up to 128 remote control units and switchers can be connected to one S-BUS line. It is possible to control up to 254 units (including the primary station) in total of all lines.

## 2-6. Protect Function

Function which protects the crosspoint set so that it cannot be released using other remote control units. While the protect function is on, the destination of the crosspoint to be protected will be fixed. Once the protect is set, it will not be released by any command, except those from the control terminal and the control unit used to set it. The protect function can be set and released freely from the control terminal connected to the primary station.

The control terminal also has a password function which allows only certain users to operate the system. The protect function can be set in the menu item [C: SET DESTINATION NAME].

## 2-7. Secret Function

Function which “hides” certain sources from all control units to protect the crosspoint set so that it cannot be switched.

Unlike the protect function that limits the destinations, the secret function limits the sources to protect them from being selected by other control units.

The secret function can be set in the menu item [D: SET SOURCE NAME].

## 2-8. Crosspoint Disable Setting Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232)

Function that limits the sources that can be selected for each destination. It can also be used to fix the area of crosspoints selected so that only certain sources can be selected for certain destinations. This function can be only used when a DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is assigned as the primary station.

This function can be set in the menu item [M: SET INHIBIT TABLE].

## 2-9. Password Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232)

The control terminal can set all configuration items of the routing switcher system. It therefore has a password function which allows only certain users to operate it. The password can be set in the menu item [P: CHANGE PASSWORD].

## 2-10. Setting the Input/Output Name (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232)

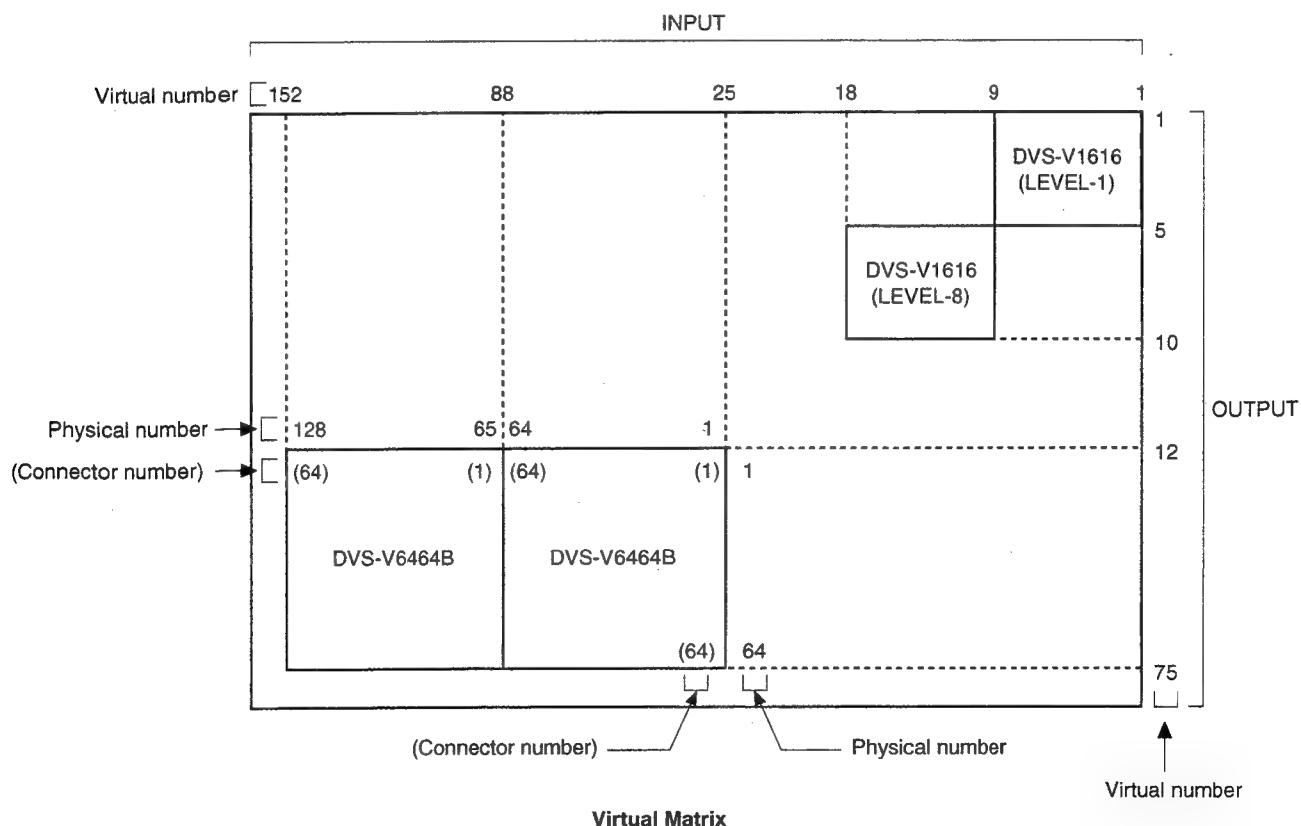
The following names can be used for the input/output connectors of the routing switcher.

1. "Type+Number" name
2. "Description" name

There are altogether three kinds of numbers that can be set as input/output numbers. These are "physical number", "connector number", and "virtual number".

The physical number and connector number are the number of connectors attached to the switcher. For a DVS-V6464B, it is 1 to 64. For a DVS-V3232B, it is 1 to 32. The difference between the physical number and connector number is that the connector number is used for each switcher frame, while the physical number is used for one router system that is either single frame or multiple cascading frames. Usually the physical number is used for the S-BUS control system, while the connector number is used for the RS-422A (9-pin remote) control system.

The virtual number is the numbers assigned when switchers are mapped on a virtual matrix with 512 inputs and 512 outputs. The numbers will not duplicate even if several switchers are mapped on the virtual matrix. Unless otherwise noted, the input/output number in this manual means the virtual number.



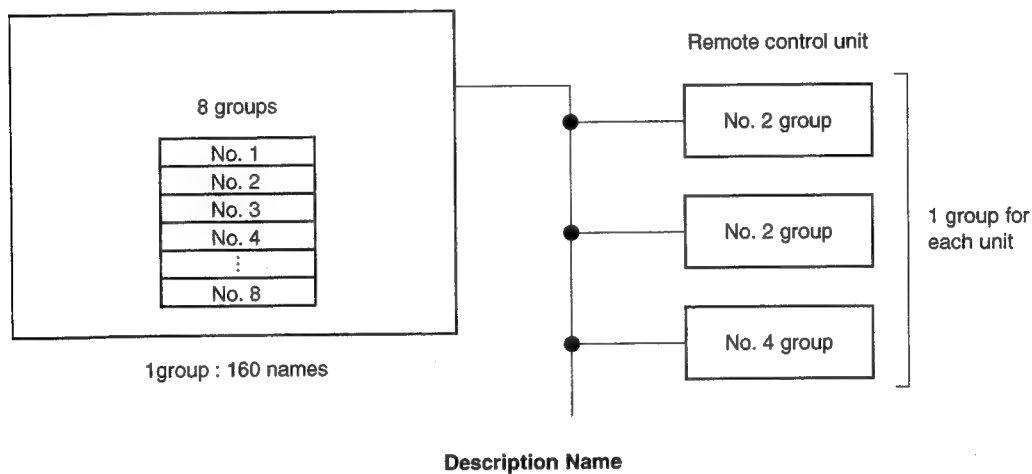


The name “Type + Num” consists of four alphabets and three numbers. It is assigned to the virtual number. Sixteen kinds of letters can be set for the “Type” part. Number 1 to 999 can be used for the “Num” part.

Examples: CAM 234, VTR 145

The name “Description” consists of any 16 characters and is assigned to the virtual number, e.g. “Tokyo” and “Market”. Up to 1024 kinds of names can be registered. The 160 kinds of them are transmitted to the remote control unit in order to set buttons and for displaying. The 160 names can be registered as one group. Data of 8 groups can be registered at the primary station. The data of remote control unit can be replaced by a group and the different data groups can be used for each remote control unit

Primary station (DVS-V3232B/V6464B, HDS-V3232)



The name “Description” can be selected the “DESCRIP. NAME” in the menu item [J: NAME STYLE] when a DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is used as the primary station. After the selection, set the description name in the menu item [C : SET DESTINATION NAME] or [D : SET SOURCE NAME].

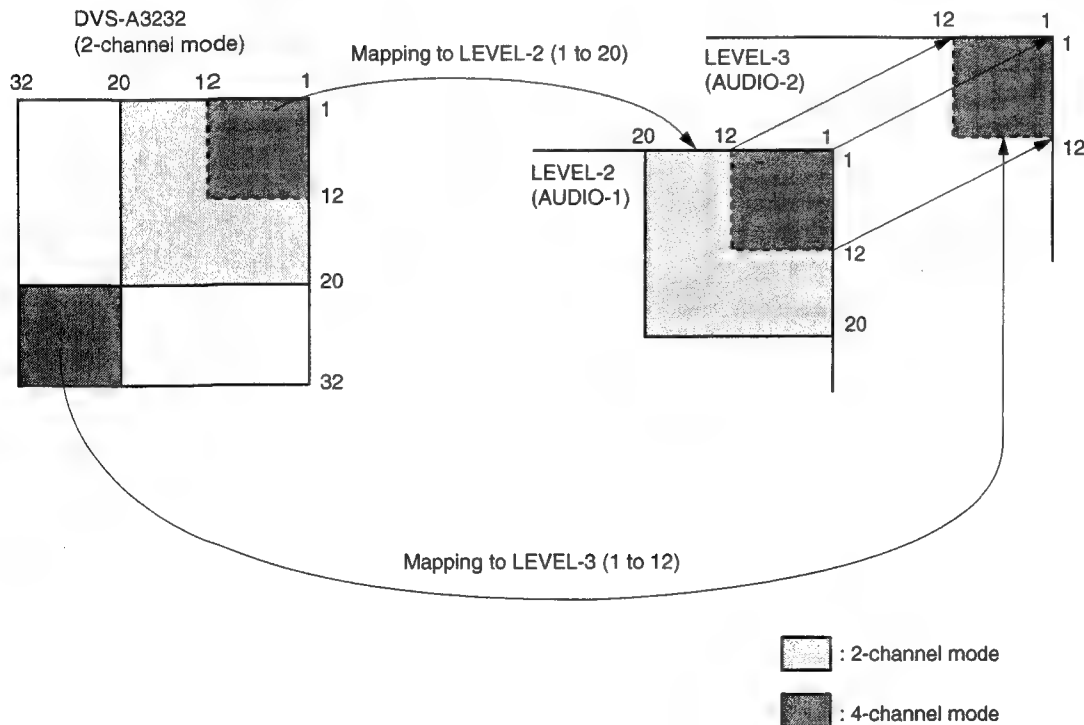
## 2-11. Virtual Mapping Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232)

Several routing switchers can be mapped on a virtual matrix with 512 inputs and 512 outputs in router system. The matrix of one switcher can be also divided into several virtual levels and mapped.

For example, a switcher handling the 4:2:2 video signal and a switcher handling the 4 fsc video signal can be mapped on the same level. By connecting them using a 4:2:2/4 fsc converter, the tie line control can be performed (refer to Section 2-14).

DVS-A3232 has two modes such as 2-channel mode and 4-channel mode. Normally, either one will be selected. However it is possible to use the overlapping area as the 4-channel mode by dividing the matrix into two in the 2-channel mode and assigning them to the different virtual levels.

In the figure below, the 12 × 12 area where the level 2 and level 3 is overlapping is set to the 4-channel mode while the other is set to the 2-channel mode in the 20 × 20 area.



It is called "Virtual mapping" that you assign crosspoints using the virtual matrices and virtual levels in this way.

This virtual mapping function can be set in the menu item [L: SET PHYSICAL ASSIGNMENT] when a DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is used as the primary station.

### Note

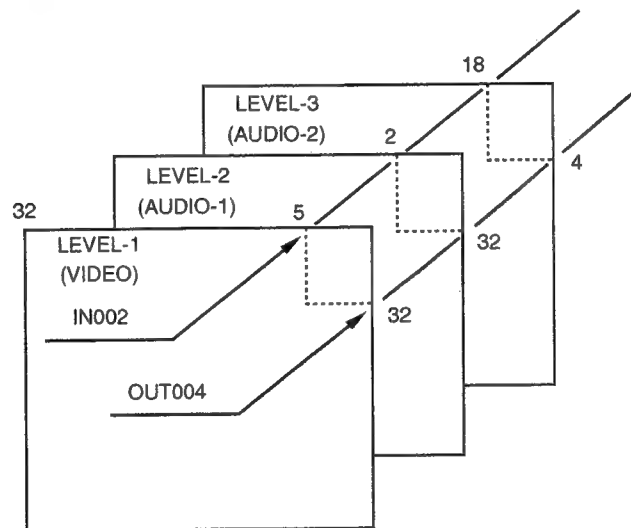
When the matrix of a DVS-V3232B/V6464B is divided into two or more matrices on multiple virtual levels, the monitor function for input/output signals may not work correctly.

## 2-12. Free Assignment Function (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232)

While the same input/output number can be assigned, through levels 1 to 8, for each input/output name, different physical number can also be assigned on each level for an input/output name.

The following figure shows the case that DVS-V6464B is used for level 1 and DVS-A3232 for levels 2 and 3. To source IN002, physical number 5 can be assigned on level 1, physical number 2 on level 2, and physical number 18 on level 3.

Similarly, to destination OUT004, physical number 32 can be assigned on level 1, physical number 32 on level 2, and physical number 4 on level 3.



This free assignment function can be set in the menu item [L: SET PHYSICAL ASSIGNMENT] when a DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is used as the primary station.

## 2-13. Monitor Function (BKDS-V3292B only)

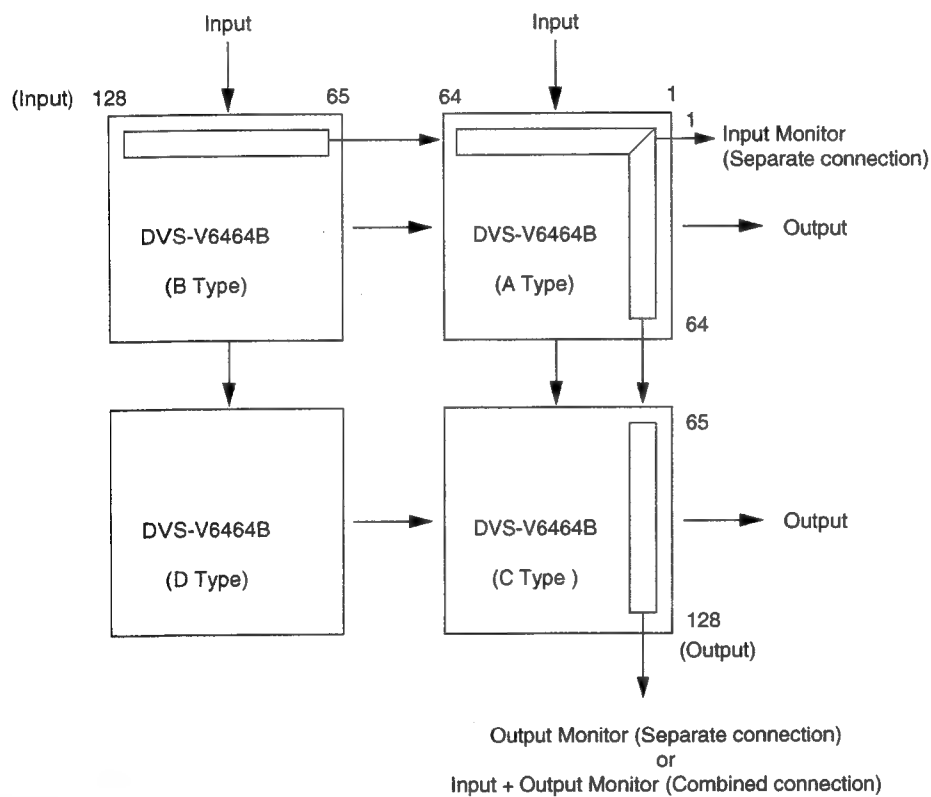
If a DVS-V3232B/V6464B is equipped with the optional BKDS-V3292B, any input/output signal can be monitored. The input and output signals can be observed on different monitors or on the same monitor by switching channels.

By connecting the monitor signals of several switchers in cascade form, all input and output signals can be observed on one monitor.

The crosspoints of monitor signals are controlled by the monitor S-BUS (the control line similar to the standard S-BUS although it controls only the monitor system).

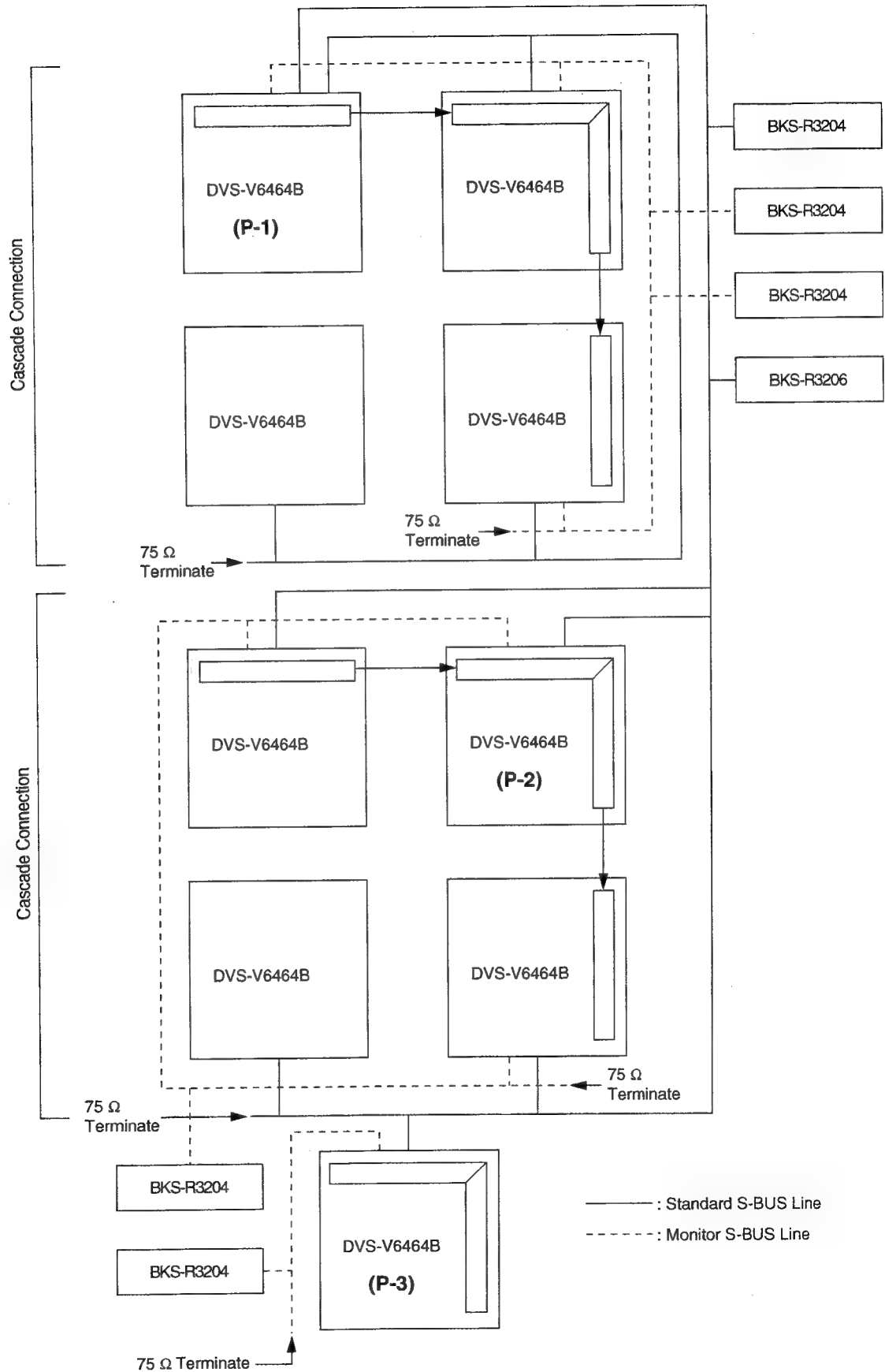
The primary station on the monitor S-BUS is independent from the primary station on the standard S-BUS. Therefore, several monitor S-BUS can be set to one system.

For example, switchers (P-2) and (P-3) in the figure on next page serve as the primary station on the monitor S-BUS independently, while the switcher (P-1) serves as the primary station on the standard S-BUS and monitor S-BUS.



### Notes

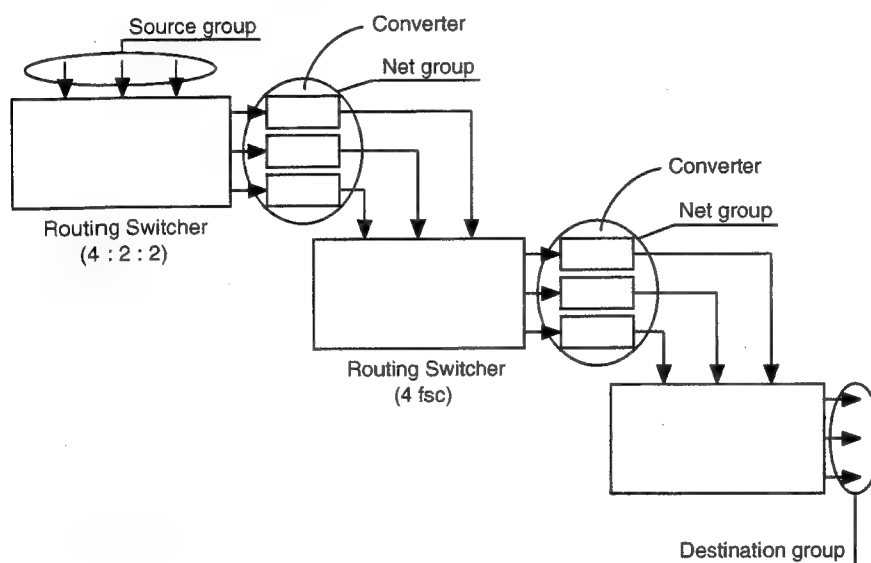
- For DVS-V3232B/V6464B routing system, the primary station on the standard S-BUS and monitor S-BUS should be the same.  
However, for the monitor S-BUS which does not include the primary station on the standard S-BUS, any switcher can be assigned the primary station.
- BKS-R1601/R3203/R3206 cannot be used as a secondary station on the monitor S-BUS.



## 2-14. Tie Line Management (DVS-V3232B/V6464B, BKPF-R70 and HDS-V3232)

If the primary station is a DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232, by previously setting four signal paths between routing switchers, unused signal paths can be selected automatically and protected when input and output names are selected. This function is called tie line management. It is effective to share the minimum number of converters (4:2:2/4 fsc, 4 fsc/4:2:2, etc.).

For example, if both a 4:2:2 video switcher and a 4 fsc video switcher have 32 sources and destinations, the converters can be shared using the tie line function and all sources and destinations can be handled with the minimum number of converters.



### Setting Procedure of the Tie Line

1. Set four input/output for each source/destination\*1 group.
2. Set the four cables connecting the switchers for each net groups such as "OUT \*\*\* - IN \*\*\*".
3. Set the path from the source group to the destination (the path consists of the selected group names)

\*1 : Source means the input signal. Destination means the output signal.

### Operation example:

1. IN023 and OUT027 are selected from the remote control unit.
  2. The CPU of the primary station detects IN023 from the source group. In the example below, the corresponding group is S002.
  3. Like for IN023, the CPU also detects OUT027. The corresponding group is D002.
  4. The CPU of a primary station detects the path which has the S002 and D002 groups. In the following example, the corresponding path is "3: S002-N004-D002".
  5. As N004 will be detected as the net group to be used, the CPU selects a usable element (not protected) from the four "OUT-IN" elements set in the N004 group, and the crosspoint is switched.
- In the following example, if OUT033-IN230 is usable, the path IN023→OUT033→IN230→OUT027 will be selected.

SOURCE GROUPS	NET GROUPS	DESTINATION GROUPS
S001: IN003	N001: OUT003-IN200	D001: OUT023
IN004	OUT004-IN201	OUT024
IN005	OUT005-IN202	OUT025
IN006	OUT006-IN203	OUT026
S002: IN010	N003: OUT023-IN007	D002: OUT027
IN015	OUT024-IN008	OUT028
IN023	OUT025-IN009	OUT029
IN027	OUT026-IN010	OUT030
:	:	:
( 20 groups )	( 40 groups )	( 20 groups )
PATHS		
1: S001-N001-N002-D001		
2: S002-N003-D001		
3: S002-N004-D002		
:		
( 20 paths )		

## 2-15. Phantom Function

Several crosspoints can be switched simultaneously with just one push of a button of the remote control unit. This is called the phantom function.

The phantom function is set using the control terminal connected to the primary station. The crosspoints are switched by the remote control unit.

The group of crosspoints switched together is called the phantom group. Each remote control unit stores the data of 57 crosspoints as the phantom group. In addition to the phantom function, in DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232, the data of 4095 crosspoints is stored in the primary station as the other kind of phantom groups. In this manual, the registered phantoms in each remote control unit are referred to as "local phantom". Those registered in the primary station are referred to as "global phantom".

The global phantom function is available if a DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is used as the primary station.

### Note

The BKS-R1607/R1608/R3209/R3210 have the local phantoms of the destination offset type in addition to the ordinary local phantom, that support the various switching.

Refer to the operation manual supplied with equipment for more details.

## 2-16. Self-Diagnosis Function

The routing switcher performed self-diagnosis on the following items and displays the results on the control terminal connected to the primary station.

- Presence of board and its sort
- Version of ROM on the control board
- Presence of backup power supply unit/backup CPU board
- Detection of fan rotation
- Display of reference signal
- Display of errors as follows
  - Faulty crosspoint (hardware)
  - Display of high temperature
  - Display of S-BUS disconnection
  - Display of required secondary station's disconnection or fault
  - Display of backup unit (control board or power supply unit)'s fault/recovery.



## 2-17. Route Function

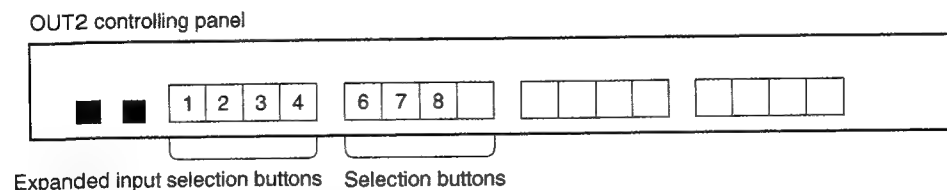
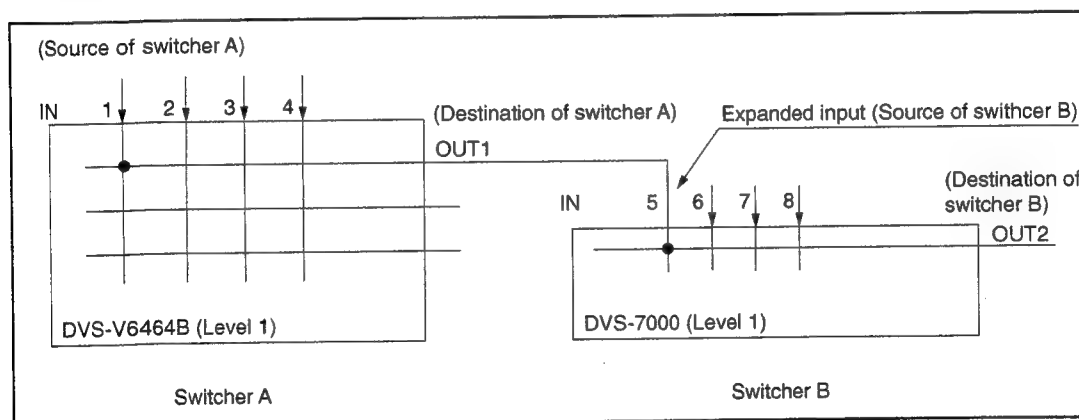
One of an application of Router is to expand number of Source inputs for DVS-7000 connecting with DVS-V6464B, show below.

Route function is to display a source input chasing from a last program out even performing 4 times Re-entry function with DVS-7000/DME. To display the actually selected source name, you must set the route function with the control terminal. Then when you select the crosspoint set on the route function, the source on the switcher A is searched for and the name is displayed. For example, when a crosspoint is switched on the switcher A in the figure below, normally IN5 appears as the source name. If the route function has been set, the source name selected on switcher A appears.

To activate the route function, set the destination of switcher A, destination and source of switcher B, and level. In case of the figure below, set "OUT1 : OUT2 < IN5."

When you use the route function, switching is possible with simple setting. For example if you select a source (IN1) for a destination (OUT1) on switcher A, the crosspoint on switcher B (IN5-OUT2) is automatically switched.

On the other hand, when you select a source (IN1) for a destination (OUT2) on switcher A, you have to set a phantom, IN1 : OUT1 < IN1 previously. Then IN1-OUT2 is displayed if the phantom; IN1 is selected.



Phantoms are set to these button.

IN1 : OUT1 < IN1

IN2 : OUT1 < IN2

IN3 : OUT1 < IN3

IN4 : OUT1 < IN4

As OUT1 is included in switching setup data,

OUT2 < IN5 is switched automatically by Route function.

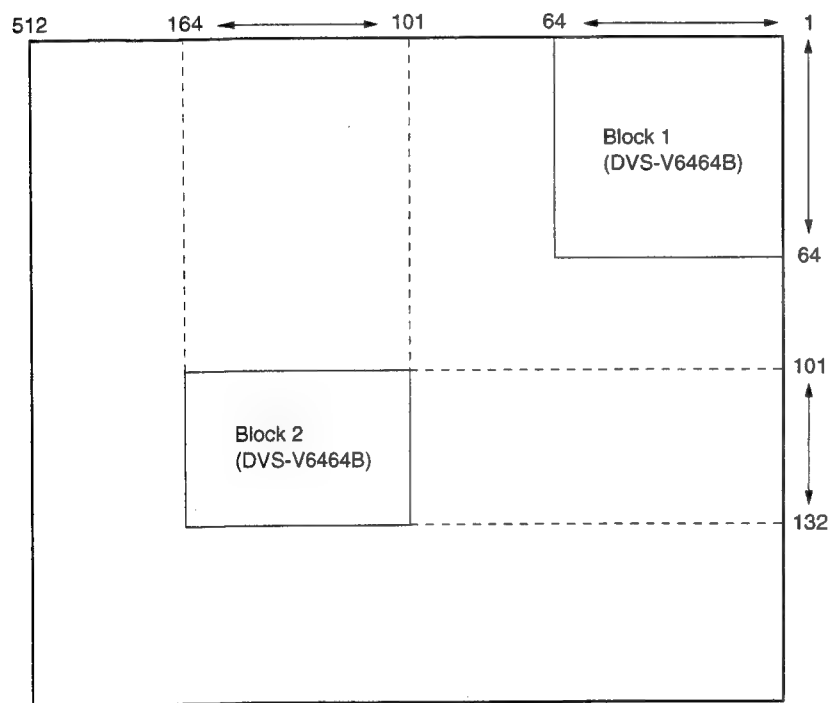
2-18. Enhanced Restriction of Selected Block (BKS-R1607/R3210 only)

If you define a certain number of outputs, you can vary a number of inputs which would not be capable with the older panel.

This is applicable with BKS-R1607 and BKS-R3210.

Maximum 8 blocks can be defined.

Block	Selected block of input	Selected block of output
1	1 to 64	1 to 64
2	101 to 164	101 to 132



## Section 3

### Control Terminal

#### 3-1. Selecting the Control Terminal

Load Windows 3.1 to an IBM PC/AT compatible machine (CPU: 80486 or a faster and more powerful micro-processor, clock: 25 MHz or faster enough) and use it as a control terminal in the terminal mode of Windows.

When using personal computers, codes F1 to F5 must be set to the Windows screen.

	Key Name	Command
F1	F1	^[ [ 17 ~
F2	F2	^[ [ 18 ~
F3	F3	^[ [ 19 ~
F4	F4	^[ [ 20 ~
F5	F5	^[ [ 21 ~
F6	-	-
F7	-	-
F8	-	-

It is possible to select codes F1 to F5 by using the cursor keys or using the **Ctrl** - **Alt** - **F\*** key combination.

Connect the personal computer to the primary routing switcher (REMOTE 3) using the RS-232C cable.

#### Symbols Used in This Manual

The symbols used for the control terminal keys in this manual are as follows.

- (1) All keys are enclosed in boxes. (Ex. **Ctrl**, **Return**)
- (2) The numerical keys in the text mean keys **0** to **9**.
- (3) The alphabet keys in the text mean keys **A** to **Z**.
- (4) The cursor key in the text mean the **↑**, **↓**, **←**, and **→** keys.
- (5) When two keys are to be pressed together, they are joined by the "-". (Ex. **Ctrl** - **X**)

#### Functions of Keys Used for Setting

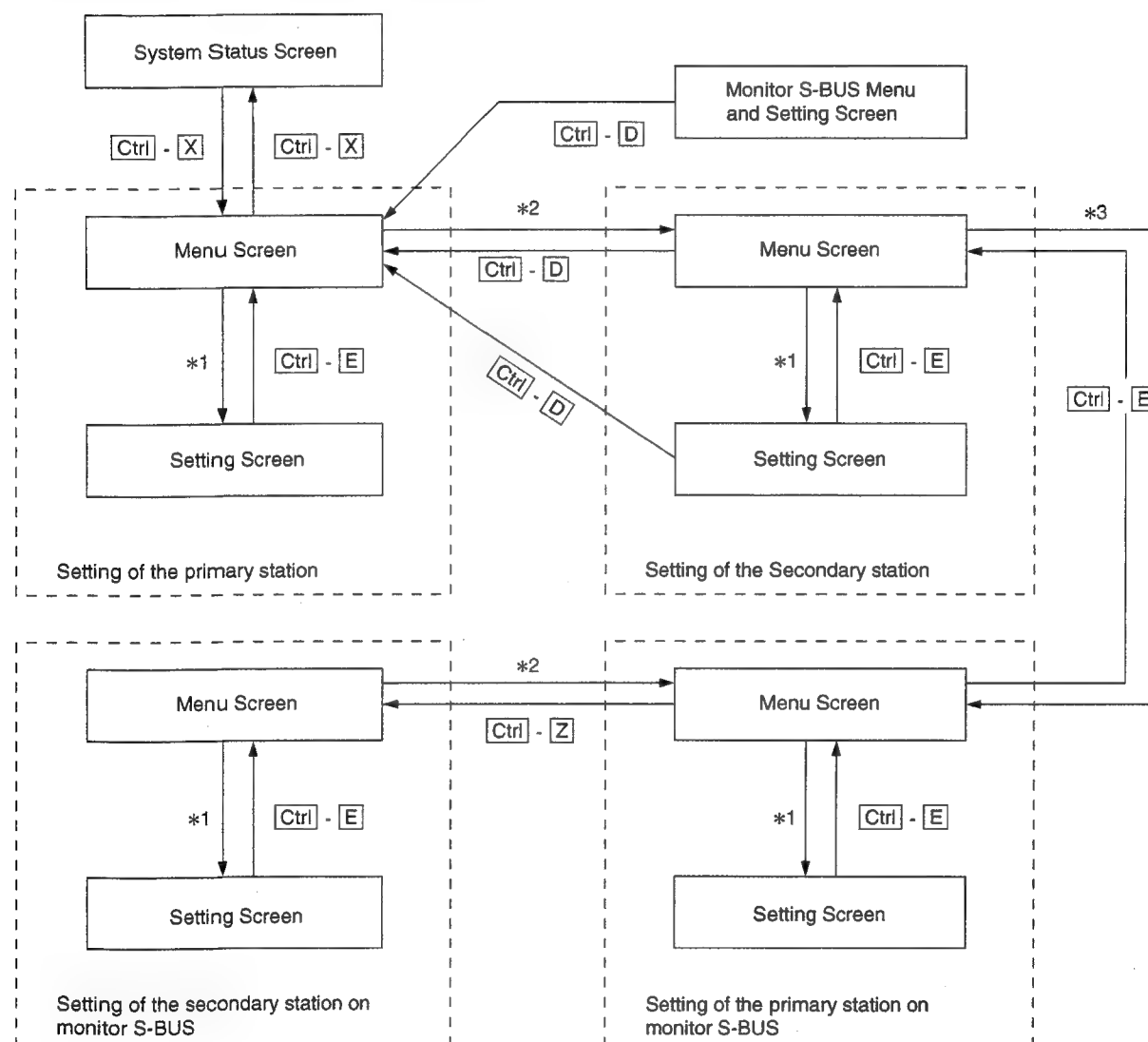
Character key : Insert the character pressed where the cursor is.

- : Move the cursor to the right one space.
- ←** : Move the cursor to the left one space.
- Ctrl** - **L** : Move the cursor to the right end of the character string.
- Ctrl** - **A** : Move the cursor to the left end of the character string.
- Ctrl** - **X** : Erase the whole character string being input and moves the cursor to the left end.
- BS** : Erase the character just before the cursor.
- DEL** : Erase the character at the cursor.
- Ctrl** - **U** : Recover the characters erased with **BS** or **DEL** where the cursor is (up to 16 characters can be restored).
- Ctrl** - **F** : Erase the character string input and recover the original state.
- Enter** : Fix the entered command and data (same as **Return**).

## 3-2. Control Terminal Display

The control terminal display consists of the following three types of screen.

- System status screen : It displays messages while the router system is operating.
- Menu screen : It displays the menu for setting the router system.
- Setting screen : It displays the setting items of each menu.



\*1 : The menu items can be selected in the following two ways.

1. Select the desirable menu item using the cursor keys, and press **Enter**.
2. Press the alphabet key allocated to each menu item.

\*2 : To move from the menu screen of the primary station to that of the secondary station, execute the menu item [R: CALL SECONDARY STATION] of the primary station.

\*3 : To move onto the menu of the primary station on the monitor S-BUS, execute the menu item [M: SET MONITOR FUNCTION] of the secondary station (set as the primary station on the monitor S-BUS).

### Note

Monitor function is able to work by BKDS-V3292B only.

### 3-3. System Status Screen

When the primary station is turned ON, the results of the self-diagnosis and ROM check sum value are displayed as shown below.

If the result of the self-diagnosis is satisfactory, "OK" will be displayed at the corresponding item.

However if an error has been detected, this item will be the reversal characters.

	Model	Software version
SONY Digital Routing System	DVS-V6464B	V2.10
ITEM		
ROM CHECK SUM	8A65	
RAM READ AND WRITE	OK	
REFERENCE SIGNAL	OK	
S-BUS LINK TERMINATE	OK	
REAL TIME CLOCK		
STARTED		
1993.02.03-22:15 STARTED BY DVS-V6464B Ver2.10 IN STATION 1		
1993.02.03-22:15 S-BUS LINK DISCONNECTED TO CHANNEL B		
1993.02.03-22:15 MISSING REFERENCE SIGNAL IN STATION 1		
1993.02.03-22:15 POWER SUPPLY UNIT B DOWN IN STATION 1		

System Status Screen

When a message is output to the S-BUS data link, the system status screen will also show the time and data of the event along with the message.

1990.10.12-15:42 S-BUS LINK DISCONNECTED
1990.10.27-09:28 STARTED BY BKS-R1601 Ver3.10 IN STATION 11
1990.11.03-05:31 STARTED BY BKS-R3204 Ver3.11 IN STATION 32
1991.01.14-13:51 MISSING REFERENCE SIGNAL IN STATION 1
1991.02.01-11:15 POWER SUPPLY UNIT B DOWN IN STATION 4
1991.02.04-06:11 X-POINT ERROR IN STATION 1

Messages of the System Status

If some error or event happens while you open a Menu Screen or a Setting Screen, then the message will be displayed when you open the system status screen.

The display will change to the menu screen when **Ctrl** - **X** is pressed.

To return to the system status screen, press **Ctrl** - **X** again.

#### Note

When **Ctrl** - **X** is pressed, the menu screen will be opened.

At this time, if the password is required, input the password.

3-4. Menu Screen

3-4-1. Menu screen of the primary station

The menu screen shows all menu items for system setting in the table data of the primary station.  
By selecting the items on the menu screen using the following procedure, the screen will show the setting screen.

**Note**

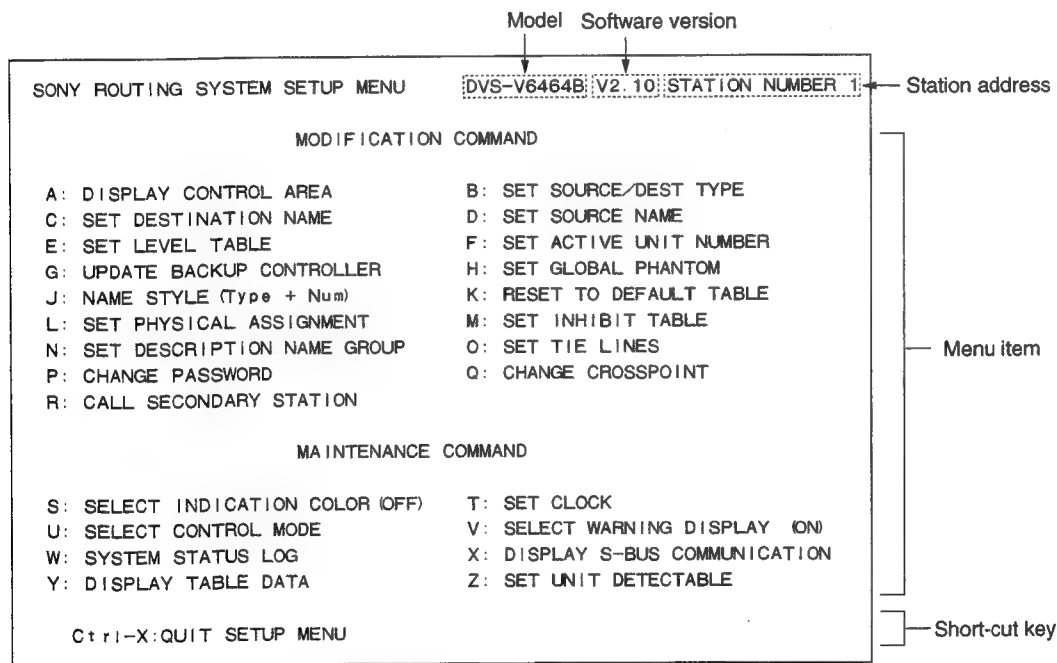
Compared with the system status screen, router system operations take more time, when the menu screen or the setting screen is open. Therefore, please return to the system status screen after system setting.

The following are two methods of selecting the menu items.

- 1. Use the cursor keys to select the desired menu item, and press **Enter**. (Some models have no this function. In this case, perform step 2. to select.)
- 2. Press the alphabet key assigned to each menu item.

The screen will return to the system status screen when **Ctrl** – **X** pressed.

Primary station menu screen of DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is as follows.



Menu Screen of the Primary Station (Ex. DVS-V6464B)

**Note**

- Menu screen of BKDF-R70 does not have the menu item [S].
- Menu screen of HDS-V3232 does not have the menu item [S] and [Y].

### 3-4-2. Menu screen of the secondary station

To call the menu screen of the secondary station, select menu item [R: CALL SECONDARY STATION] in the primary station menu and input the secondary station number.

To set the secondary station function of the routing switcher used as the primary station, input "1" as the secondary station number.

The screen will return to the menu screen of the primary station when **Ctrl** – **D** is pressed.

#### Note

When the secondary station menu is called, the color function will become ineffective, even if [S: SELECT INDICATION COLOR] has been selected to "ON".

#### (1) Routing switcher

##### ① DVS-V1616

SONY ROUTING SYSTEM SETUP MENU		DVS-V1616 V3.00 STATION NUMBER 9
MODIFICATION COMMAND		
A: SET UNIT LOCATION	K: DEFAULT TABLE	
MAINTENANCE COMMAND		
Y: DISPLAY TABLE		
Ctrl-D: RETURN		

Menu Screen of the Secondary Station (Ex. DVS-V1616)

##### ② DVS-V3232B/V6464B, BKPF-R70

SONY ROUTING SYSTEM SETUP MENU		DVS-V6464B V2.10 STATION NUMBER 2
MODIFICATION COMMAND		
A: SET UNIT LOCATION	G: UPDATE BACKUP CONTROLLER	
K: RESET TO DEFAULT TABLE	M: SET MONITOR FUNCTION	
U: SELECT REMOTE PROTOCOL		
MAINTENANCE COMMAND		
V: DISPLAY UNIT STATUS	Y: DISPLAY TABLE DATA	
Z: SELECT SDI FORMAT		
Ctrl-D: RETURN		

Menu Screen of the Secondary Station (Ex. DVS-V6464B)

③ DVS-RS1616/TC3232/A3232, BVS-V3232/A3232

```

SONY ROUTING SYSTEM SETUP MENU  DVS-RS1616 V3.01 STATION NUMBER 7

                                MODIFICATION COMMAND

A: SET UNIT LOCATION           G: UPDATE BACKUP CONTROLLER
K: DEFAULT TABLE

                                MAINTENANCE COMMAND

Y: DISPLAY TABLE             Z: SELECT CONNECTION

Ctrl-D: RETURN
    
```

Menu Screen of the Secondary Station (Ex. DVS-RS1616)

**Note**

DVS-TC3232/A3232 and BVS-V3232/A3232 does not have menu item [Z].

④ HDS-V3232

```

SONY ROUTING SYSTEM SETUP MENU  HDS-V3232 V1.00 STATION NUMBER 3

                                MODIFICATION COMMAND

A: SET UNIT LOCATION           G: UPDATE BACKUP CONTROLLER
K: DEFAULT TABLE
U: SELECT REMOTE PROTOCOL

                                MAINTENANCE COMMAND

Z: SWITCHING FIELD

Ctrl-D: RETURN
    
```

Menu Screen of the Secondary Station (Ex. HDS-V3232)

⑤ BKPF-R300/301/350/351

```

SONY ROUTING SYSTEM SETUP MENU  BKPF-300 V1.00 STATION NUMBER 13

SOURCE No. 0001-0008    DESTINATION No: 0001    LEVEL No.: 1

SWITCHING FIELD: ASYNC    SDI FORMAT: 4:2:2

Ctrl-D: RETURN
    
```

Menu Screen of the Secondary Station (Ex. BKPF-R300)



**(2) Remote control unit****① BKS-R3202**

```
SONY ROUTING SYSTEM SETUP MENU    BKS-R3202 V3.10 STATION NUMBER 16

                                MODIFICATION COMMAND

H: SET PHANTOM TABLE

N: SET PANEL TABLE

O: SET AVAILABLE DESTINATION

L: COPY TABLE DATA

S: DISPLAY DESCRIPTION NAME

Ctrl-D: RETURN
```

**Menu Screen of the Remote Control Unit (Ex. BKS-R3202)****② BKS-R3204/R3205/R3206**

```
SONY ROUTING SYSTEM SETUP MENU    BKS-R3206 V3.11 STATION NUMBER 18

                                MODIFICATION COMMAND

H: SET PHANTOM TABLE

N: SET PANEL TABLE

O: SET AVAILABLE DESTINATION

L: COPY TABLE DATA

Z: SET PANEL STATUS

S: DISPLAY DESCRIPTION NAME

Ctrl-D: RETURN
```

**Menu Screen of the Remote Control Unit (Ex. BKS-R3206)**

③ BKS-R1607, BKS-R1608, BKS-R3209, BKS-R3210

```
SONY ROUTING SYSTEM SETUP MENU      BKS-R1607 V1.00 STATION NUMBER 3

                                MODIFICATION COMMAND

H: SET PHANTOM TABLE
N: SET PANEL TABLE
O: SET AVAILABLE SOURCE/DESTINATION
R: SET ROUTE
L: COPY TABLE DATA
Z: SET PANEL STATUS
S: DISPLAY DESCRIPTION NAME

Ctrl-D: RETURN
```

Menu Screen of the Remote Control Unit (Ex. BKS-R1607)

**Note**

BKS-R1608/R3209 does not have the menu item [O].

④ BKS-R3216, BKS-R1617, BKS-R1618, BKS-R3219, BKS-R3220, BKS-R1621

```
SONY ROUTING SYSTEM SETUP MENU      BKS-R3216 V1.03 STATION NUMBER 2

                                MODIFICATION COMMAND

H: SET PHANTOM TABLE
N: SET PANEL TABLE
O: SET AVAILABLE SOURCE/DESTINATION
R: SET ROUTE
L: COPY TABLE DATA
Z: SET PANEL STATUS
Y: SET DISPLAY MODES
S: DISPLAY DESCRIPTION NAME

Ctrl-D: RETURN
```

Menu Screen of the Remote Control Unit (Ex. BKS-R3216)

### 3-4-3. Menu screen of the primary station on monitor S-BUS

To call the menu screen of the primary station on the monitor S-BUS, select menu item [R: CALL SECONDARY STATION] in the primary station menu on the standard S-BUS. (The switcher set as the primary station on the monitor S-BUS.)

Next, select menu item [M: SET MONITOR FUNCTION].

#### Note

If a switcher except the primary station on the monitor S-BUS is selected, this menu will not be displayed even if [M: SET MONITOR FUNCTION] has been performed.

DVS-V3232B/V6464B + BKDS-V3292B (Monitor board)

SET MONITOR FUNCTION	DVS-V6464B Monitor Bus I/F V2.10
MODIFICATION COMMAND	
F: SET SCTIVE UNIT NUMBER	
M: SELECT MONITOR FUNCTION ( COMBINED )	
R: CALL SECONDARY STATION	

Menu Screen of the Primary Station on Monitor S-BUS (Ex. DVS-V6464B)

### 3-4-4. Menu screen of the secondary station on monitor S-BUS

To call the menu screen of the secondary station on the monitor S-BUS, call the primary station on the monitor S-BUS in advance.

Select menu item [R: CALL SECONDARY STATION] and input the station number.

#### (1) Routing switcher

① DVS-V3232B/V6464B + BKDS-V3292B (Monitor board)

SET MONITOR FUNCTION	DVS-V6464B Monitor Bus I/F V2.10	STATION NUMBER 8
MODIFICATION COMMAND		
M: SET AVAILABLE MONITOR LINE INPUT= ( ENABLE ) OUTPUT= ( ENABLE )		
Ctrl-Z: RETURN		

Menu Screen of the Secondary Station on Monitor S-BUS (Ex. DVS-V6464B)

**(2) Remote control unit**

① BKS-R3202

```
MONITOR SYSTEM SETUP MENU      BKS-R3202 V3.10 STATION NUMBER 14  
  
MODIFICATION COMMAND  
  
S: DISPLAY DESCRIPTION NAME  
  
Ctrl-Z: RETURN
```

**Menu Screen of the Secondary Station on Monitor S-BUS (Ex. BKS-R3202)**

② BKS-R3204, BKS-R3205

```
MONITOR SYSTEM SETUP MENU      BKS-R3204 V3.11 STATION NUMBER 18  
  
MODIFICATION COMMAND  
  
N: SET PANEL TABLE  
  
L: COPY TABLE DATA  
  
Z: SET PANEL STATUS  
  
S: DISPLAY DESCRIPTION NAME  
  
Ctrl-Z: RETURN
```

**Menu Screen of the Secondary Station on Monitor S-BUS (Ex. BKS-R3204)**

### 3-5. Setting Screen

Set the items in the menu in the setting screen.

To call the setting screen, select the menu item with the cursor key or input it using the alphabet key, and press **Enter**.

(The same procedure for calling the setting screen is applied to both the primary station menu and secondary station menu.)

The screen returns to the menu screen when **Ctrl** – **E** is pressed at each menu item.

Then if **Ctrl** – **X** is pressed, the screen will return to the system status screen.

#### **Note**

The setting screen of menu items “C”, “D”, “E”, “H”, “L”, “M”, “N”, “O”, and “Q” may differ according to the source/destination name mode set at menu item “J”.

#### **For the “Type + Num” mode:**

- The name of the destination or source will be displayed in the form of type name and number.
- To set or change the name, select any name from the list displayed at the bottom of the screen and then input it using the numerical keys.

#### **For the “DESCRIP.NAME” mode:**

- The name of the destination or source will be displayed in the form of the Description.
- To set or change the name, directly input it using the alphabet or numerical keys.

Unless otherwise noted, the setting screen used in this manual are that of the “Type + Num” mode.



## Section 4

### Setup Procedure

#### 4-1. Outline

This setup procedure is written for the setup operator to understand the setup procedure, and more importantly, the philosophy behind the setup. Time spent now, before actually sitting down at the Setup Terminal will greatly enhance the flexibility of your router system (routing switcher system). If your system is only comprised of DVS-V\*\*\*\* routing switchers the setup approach is much simpler, and pretty strait forward. But, if your router system is comprised of more the one type of routing switcher (AES/EBU, Analog Audio, or Video, Time Code, RS-422A Remote, etc.) it is very important that you understand what you read in this procedure before you actually start the setup procedure.

A router system with different types of routing switchers should usually be thought of as a 3 dimensional object. We will see in this procedure that in a few cases the old 2 dimensional model of a X-Y matrix switch will do. But, the most flexibility is obtained by thinking of each type of routing switcher as a separate, and distinct Z layer, or level (see figure 2).

Regarding detailed setup information, refer to the menus explanation in the Installation manuals chapter on setup.

What we will do in this procedure is to:

1. Identify all in/out signals, and segregate them into 16 types of sources and destinations.
2. Assign virtual inputs, and outputs a "Type + number" name. (numbers start at 001 and go to 512 for both source, and destinations)
3. Assign each output "Type + number" name to one or more levels.
4. Assign each "Type + number" name to an actual physical in/out location.
5. Assign any needed phantoms (also known as "salvos").
6. Decide which control units can be active on the S-BUS, and displayed in various diagnostic modes.
7. Decide which inputs won't be available at selected outputs.
8. Setup any "tie lines" needed.
9. Assign second naming convention (if desired).
10. Setup individual control units on the S-BUS data link.

Regarding steps 1 through 4, these are important steps (with step 2 being the longest, and most critical). As an introductory explanation, it should be clear that we humans like to deal in names, while the S-BUS control system deals in numbered labels, which the primary (main routing switcher frame) will translate into actual physical inputs, and outputs. Many facilities will base the mnemonics used in all documentation based on the limitations imposed by routing switcher names, and display windows.

For details of setting information, refer to the Section 5.

## 4-2. Preliminary Information Before Installation

The control area of each switcher when used as the primary station is as follows.

Model area	Input control area	Output control management	Level	Remarks
DVS-V6464B DVS-A3232 DVS-RS1616 DVS-TC3232	1 to 512	1 to 512	1 to 8	Expansion possible
DVS-V3232B DVS-V1616 BVS-V3232 BVS-A3232 BKPF-R70 HDS-V3232	1 to 512	1 to 512	1 to 8	Expansion not possible

Example : DVS-V3232B and HDS-V3232 have 32 inputs and 32 outputs. But when one of them set the primary station, it can control up to 512 inputs and 512 outputs using the cascading secondary stations.

- Be sure to set a station number for each routing switcher and remote control unit installed.  
Refer to the manuals of each unit for how to set the station number.
- In this manual, the input signal is called source, and the output signal destination.
- When using two or more BKS-R1607, BKS-R3209 or BKS-R3210 for a mother and daughter configuration (combined system), it is necessary to set DVS-V3232B /V6464B, BKPF-R70 or HDS-V3232 as the primary station.



## 4-3. Preparation Before Setup

### 1. Set a primary station

DVS-V6464B or DVS-V3232B is recommended as the primary station.

Set M/S switch on the CPU-149 board to "M" position\*<sup>1</sup>.

Station ID automatically will equal one.

**Note**

Set only one primary station.

If more than two are set as the primary, they will not work correctly.

### 2. Connect PC

Connect a IBM compatible PC with MS-DOS Ver. 6.2 to the Remote 3 on the primary, using RS-232C cross-cable with 25-pin (male) and 9-pin (female) connectors\*<sup>2</sup>.

Run terminal emulation software and communicate at 9600 bps\*<sup>3</sup>.

The Terminal program associated with Windows 3.1 allows the mapping of control strings to virtual function keys in the terminal program. Therefore, if you are using Windows 3.1 you can use it's Terminal program. Windows 95, and Windows NT have terminal emulation programs which do not have this feature. If you are using a PC with Windows 95 or Windows NT, you must use a third party terminal emulation program that allows control strings to be mapped to keys on the keyboard (usually the F1 through F12 function keys).

### 3. Turn on the power

Turn on the power of all equipment connecting on the S-BUS line.

**Note**

Operation of the routing switcher may be unstable just after the power is turned on. Wait about one minute of warm-up before starting the setup.

\*1 : Set the P/S switch of the BKPF-R70 board to "P" position.

\*2 : Use the cross-cable with 9-pin (female) and 9-pin (female) connectors for BKPF-R70.

\*3 : Data transfer speed of BKPF-R70 is 38400 bps.

## 4-4. Basic Setup Procedures

### 1. Identify all in/out signals, and segregate them into 16 types of sources and destinations

#### (1) Make IN/OUT list of each routing switcher

Make input/output list of each routing switcher referring to installation, or wiring diagram or other documentation showing router interconnection. Figure 1 shows an example of a 3 router system. It is composed of an SDI, AES/EBU, and a Analog routing switcher.

At this time consider the mnemonics that can be assigned to each of the inputs or outputs.

The DVS series routing switcher can accept up to 16 unique, 4 letter (maximum) pre-fix names, such as CG, VT, VTR, CAM, NET, SAT, BARS, TONE, etc.. The default mnemonics are IN for the input side, and OUT for the output side.

#### Note

Type Name = Mnemonics

Each pre-fix type can have 1000 items associated with it (VTR000, VTR001, ....VTR999). These 16 pre-fixes you generate will be used on both the input, and output sides. What this means is that each input, or output to the routing switcher will be referred to in a "Type + number" format (see the examples in the upper right hand corner of figure 1.

The same name (such as VTR001) can be assigned to a input, and to an output of the routing switcher. But, a unique name can only be used once per input, and output. It is important that you consider carefully your naming convention now, as it will be carried throughout the rest of the setup, and will be the name displayed on control panels, and other displays. Actual Source and Destination descriptive names are decided later.

#### Note

There is a second naming convention that can be used in place of the "Type + number" format.

But it is necessary to first enter names under the just mentioned format, and add the second set of names later (they do not erase the "Type + number" set). The second approach is called Descriptive Names. It is explained in step 9.

Example :

#### VIDEO ROUTER SOURCE

Generic Source Name	Connector	Router Source Name
CAMERA 1	17	CAM001
CAMERA 2	18	CAM002
VTR 1	1	VTR001
VTR 2	2	VTR002

#### VIDEO ROUTER DESTINATION

Generic Destination Name	Connector	Router Destination Name
VTR 1	1	VTR001
VTR 2	2	VTR002
VTR 3	3	VTR003
VTR 4	4	VTR004

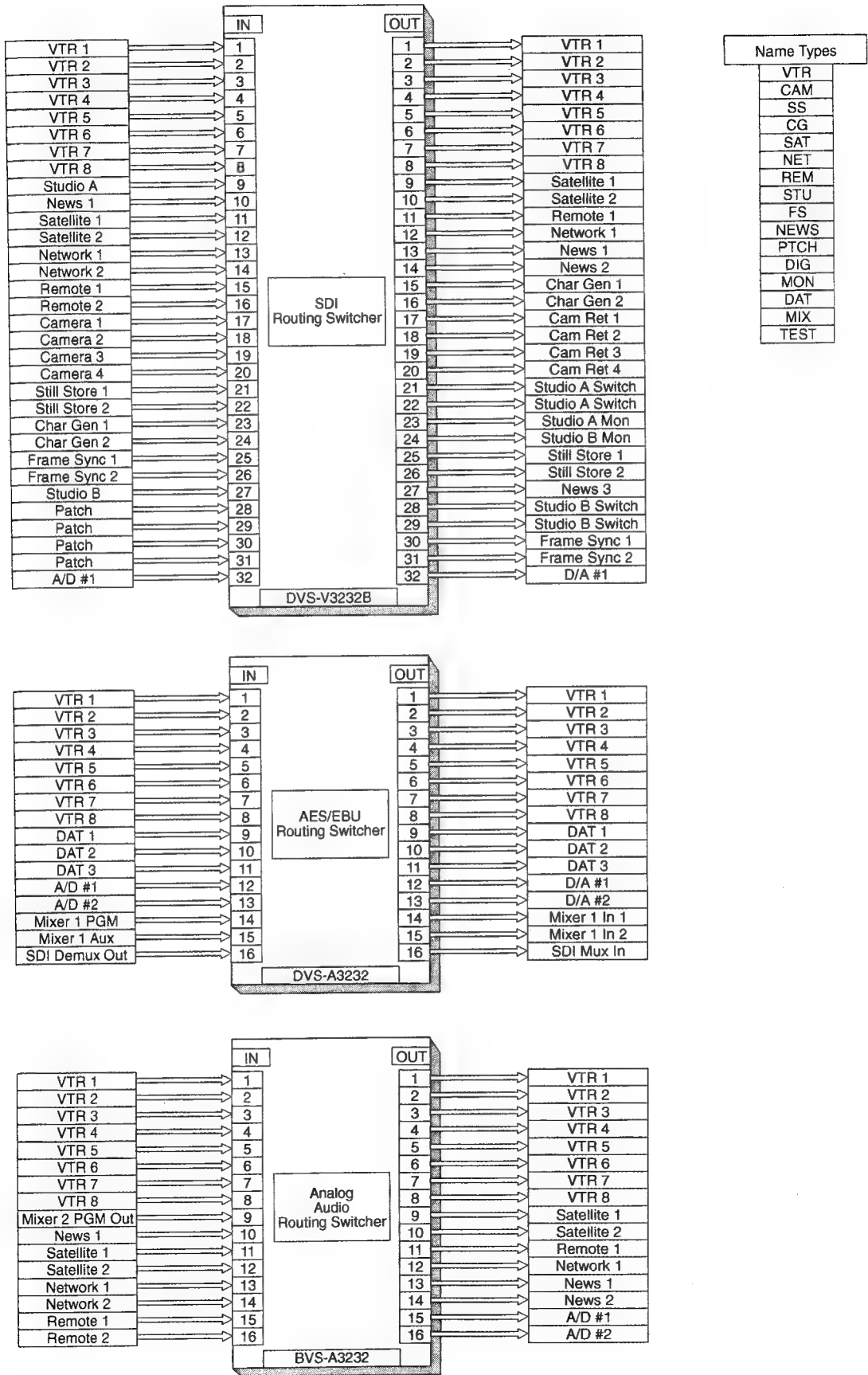


Fig. 1

**(2) Assign Name Types (Menu Item [B])**

Now select, and enter your 16 source and destination name pre-fixes.

Once again, up to 16 type names used for source/destination name are decided using 4 letters (except “;”).  
Set using the menu item [B : SET SOURCE/DESTINATION TYPE].

Example : CAM, VTR, CG, DVE, MON, PGM, BLK, DAT, STL, TONE, CD, ...

If a consistent display format is desired, all name types should be the same length.

SOURCE/DEST/PHANTOM TYPE DVS-V6464B V2.10 STATION NUMBER 1															
0=VTR	1=VCR	2=AUX	3=FLM	4=TEST	5=STU	6=CAM	7=REM								
8=CG	9=NETA	A=ENG	B=ED	C=FS	D=SS	E=BARS	F=PHAN								
C t r l - E : RETURN TO MENU															

**2. Source/Destination names (Menu Items [C] & [D])**

At this point another very important decision must be made as to how your router system is organized, programmed, and ultimately able to be used. You should take some time at this point to read, and totally understand the implications of what this step in the setup means for future routing switcher setup, operation, and flexibility. How you approach this step will greatly determine the flexibility your system will afford in control panel operation, and ease of system modification.

Many router systems are not only comprised of a SDI routing switcher (DVS-V\*\*\*\* routing switcher frames), but additional types of routing switchers as well. If you only have DVS-V\*\*\*\* type SDI routing switchers the information presented is not as critical to your operation, but should be read for background information anyway. These additional routing switchers usually are analog audio, and/or video routing switchers. Other possible routing switchers include AES/EBU, Analog Audio, Time Code, and RS-422 machine control systems. These other routing switchers are usually controlled by the SDI “primary” frame. This will be the case if you are using this guide for router system setup.

These additional types of routing switchers can be thought of as “assets” (secondary stations) to be managed by the primary. These “assets” are additional crosspoints for switching analog video, or audio, time code, etc. Your method for controlling these additional crosspoints are generally through control panels attached to the S-BUS. Your mix of control panels, and the number, and type of additional, or secondary routing switchers will determine the approach taken for “mapping” all the various crosspoints in the primary, and secondary routing switchers.

There are two general approaches that can be taken in “mapping” crosspoints. Although either approach can be mutually exclusive of the other, generally a mixture of the two are used.

The first approach is called “level mapping”. There are sources where the digital (video), and analog audio or video routing switchers should naturally follow one another (VTR’s for instance). With sources that should follow, you can use “level mapping”, with the SDI routing switcher on level 1, and the audio analog routing switcher on level 2, etc..

Looking at figure 1, VTR001 could have:

- its SDI input connected to DVS-V\*\*\* routing switcher output 1,
- and its AES/EBU audio input connected to DVS-A3232 routing switcher output 1,
- and its analog audio input connected to analog audio routing switcher out 1.

Figure 2 shows that no two levels need to occupy the same size space in the X, and Y directions. As our example in figure 1 demonstrates, level 1 could be 32 by 32 in 2 dimensional X, Y space, while levels 2, and 3 are only 16 by 16.

Actually each level could occupy different size X, and Y space. Finally, it should be clear that Z “depth”, is three in our case since we have 3 levels.

### Levels Can occupy different size 2 dimensional space

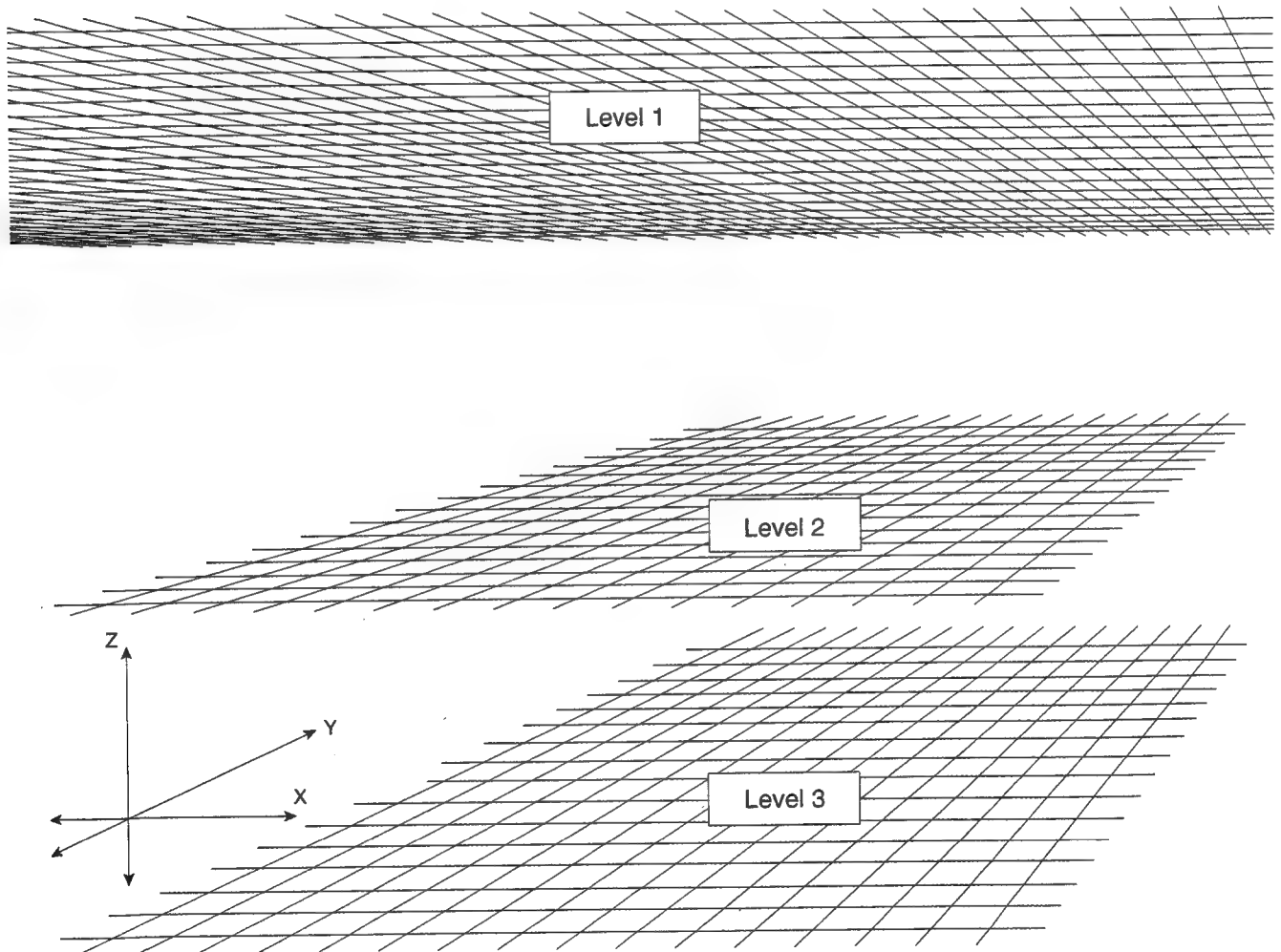


Fig. 2

Going back to the VTR 1 example, each of the 3 routing switcher outputs (SDI, AES/EBU, and analog audio) could be assigned to a different level, under the VTR001 label.

Whenever destination VTR001 was selected all 3 crosspoints in the 3 different routing switchers would switch together. This approach is often the simpler approach to implement, and understand, but it can limit future flexibility in operation, as we will see.

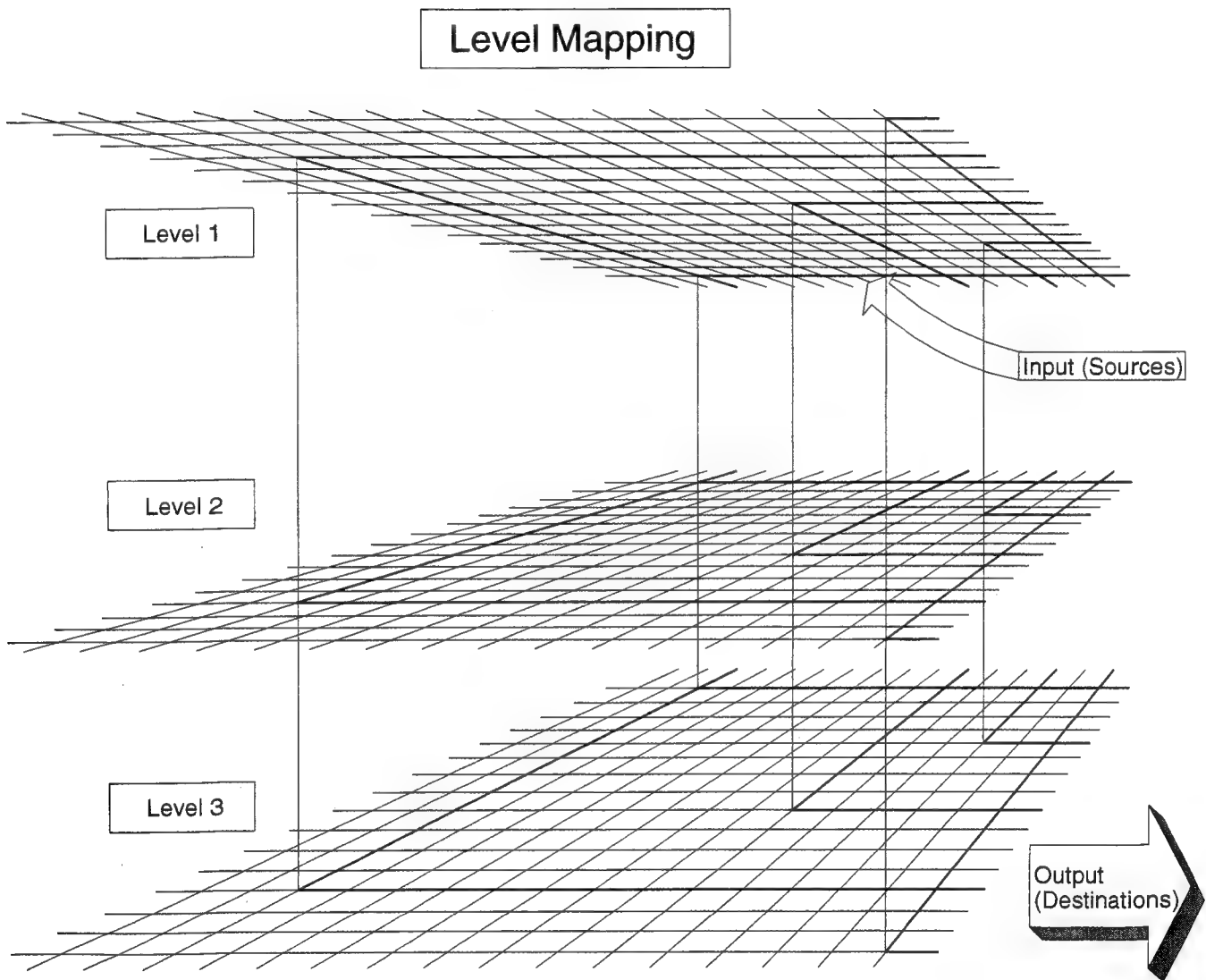
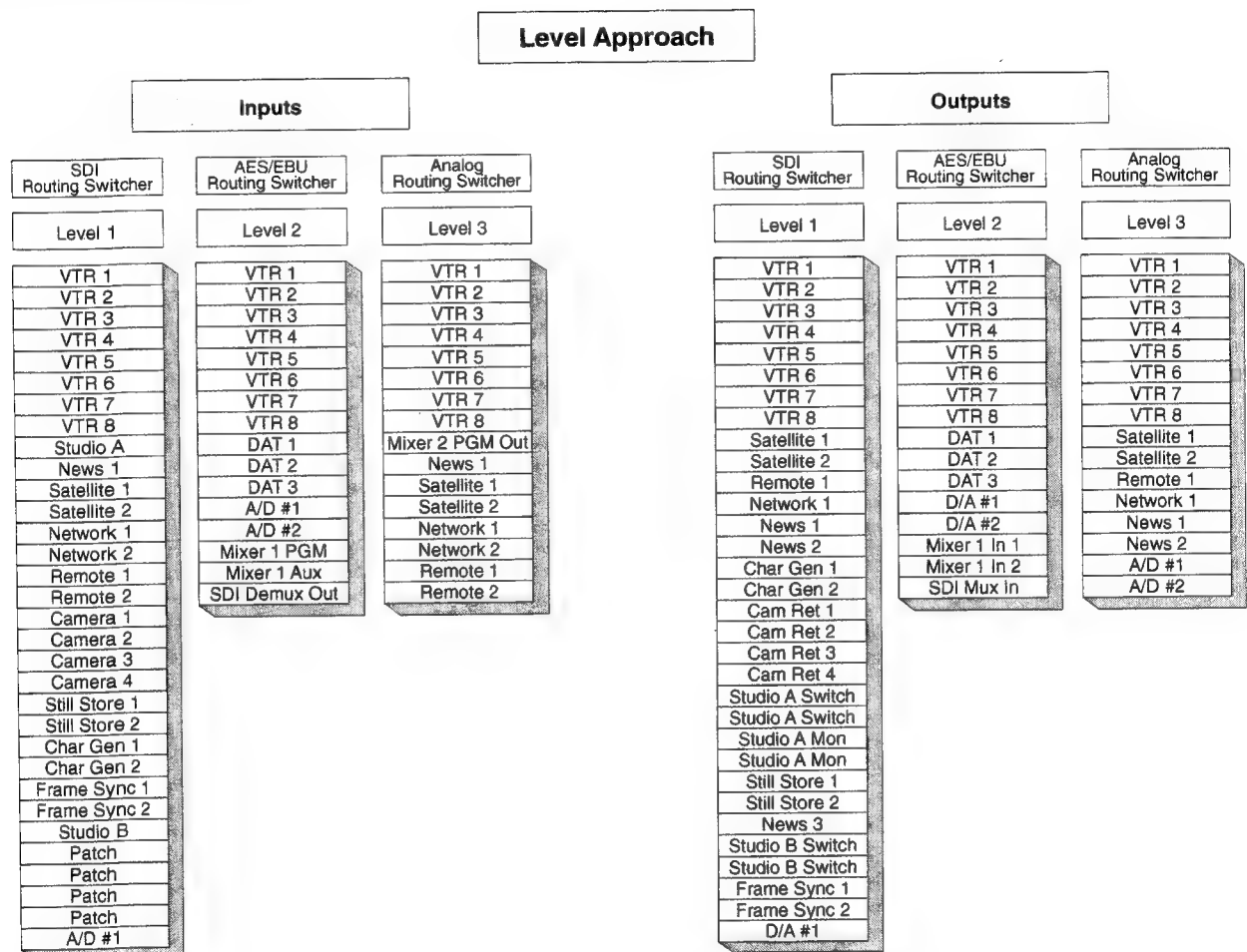


Fig. 3

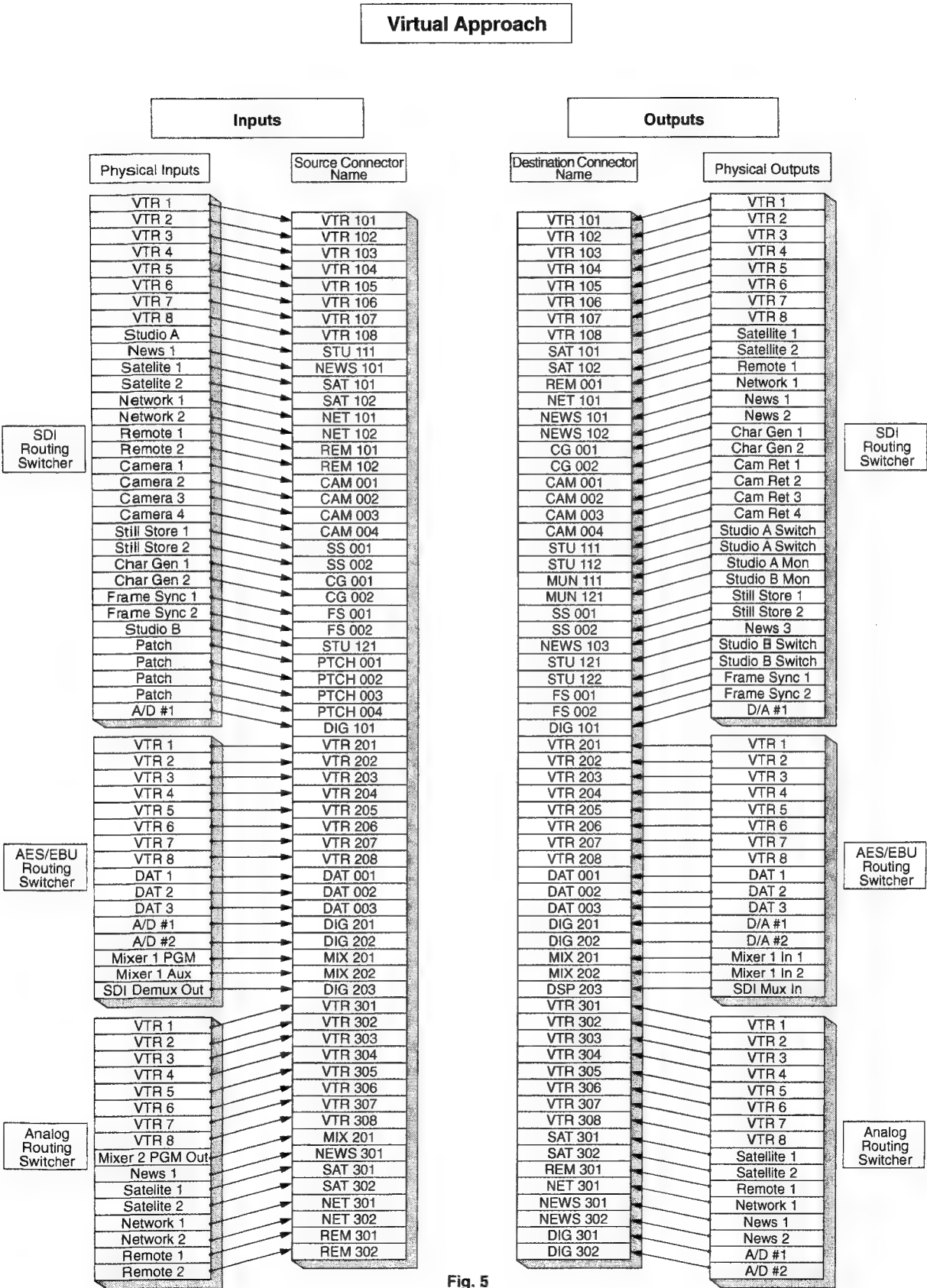
With this approach, you need the control terminal connected to the primary routing switcher, or a control panel that allows access to individual “levels”, like the BKS-R1607, BKS-R1608, BKS-R3209 or BKS-R3210 to control only one level of VTR001 routing.

Figure 4 shows this approach.



**Fig. 4**

The second approach is “virtual mapping”. There are sources that don’t logically follow one another, looking at figure 4, you can see that News 1, and DAT 2 on the source side, Satellite 1, and DAT 1 on the destination side are just 2 of many that wouldn’t normally be switched together. In this case the approach shown in figure 5 could be used.





#### Example : Destinations

- Satellite 1 connected to SDI routing switcher OUT 9  
(SDI routing switcher given label destinations 001-032)
- DAT 1 connected to AES/EBU routing switcher OUT 9  
(AES/EBU routing switcher given label destinations 033-048)
- Satellite 1 connected to Analog Audio OUT 9  
(Analog audio routing switcher given label destinations 049-064)

Therefore :

SDI Satellite 1	(Sat001) .....	virtual level 1 out label 9
AES/EBU	(DAT001) .....	virtual level 1 out label 41
Analog Audio Satellite 1	(Sat003) .....	virtual level 1 out label 57

If DAT001 destination is changed on a control panel only output label 41 (AES OUT 9) changes. Good in situations where few signals logically follow from one level to the next (DAT's and cameras, Mics and CG's, Audio Mixers and Still Stores, etc.). With this approach any sources/ destinations that should follow across multiple routing switchers would require phantoms (covered later) to implement multiple crosspoints switched.

A combination of virtual, and level mapping combines both approaches as shown in figure 6.

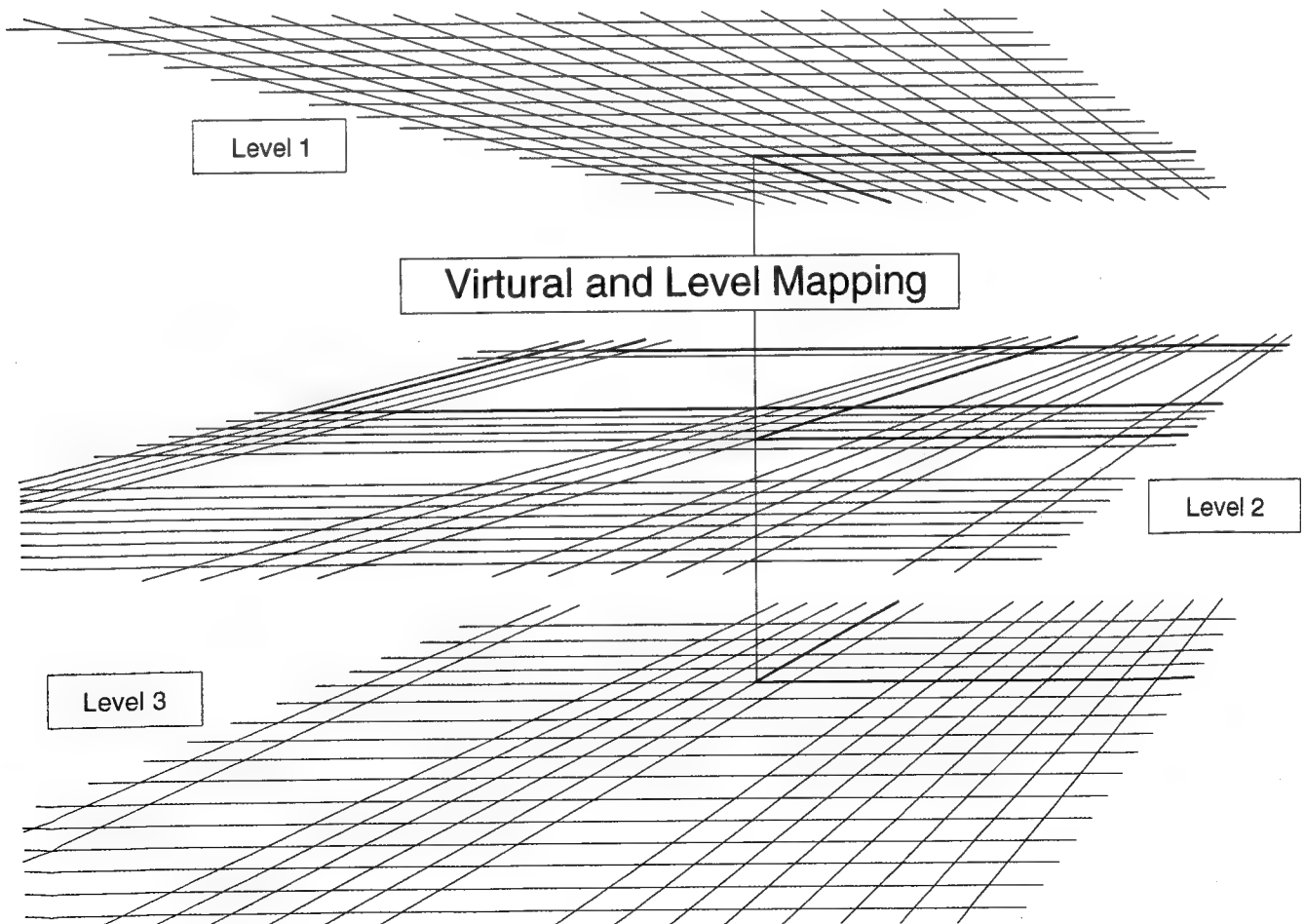


Fig. 6

With this approach sources, and destinations like the VTR's would be level mapped together so that all 3 routing switchers switch at the same time under the VTR001, VTR002, etc. label.

But in the case of output 11, of each of the 3 routing switchers, the 1, and 3 levels (SDI, and analog audio respectively) would be level mapped and switched together (REM001) while output 11 of level 2, which is DAT003 would be virtually mapped off away from the other 2, so that it could be easily switched on it's own.

Example : Level 1, & level 3 outputs 11 are tied together under the REM001 label  
Level 2, mapped out from under level 1 output 11 under the DAT003 label

If DAT003 destination is changed on a control panel only level 2 output 11 crosspoint on the AES/EBU routing switcher changes. If REM001 destination is changed both levels 1, and 3 change. This approach is good for a mixture of signals where routing levels follow in some instances, but not always.

**Note**

Sources/Destinations where all associated crosspoints on all levels should follow would be mapped only by levels. Sources/Destinations which shouldn't follow would be mapped virtually.

Again, a pure level mapping approach is where all physical inputs 1, 2, etc are tied together on different levels (see figure 4).

A pure level mapping approach is usually the worst approach. In our example here DAT 3, which is on output 11 of the AES/EBU routing switcher appears as REM001 on all control, and display, panels if the level only approach is taken.

Using the virtual/level mixture approach you will get separate video, and audio tallies (control panel push button lit). As an example, (see figures 7, and 8) if you use the 2 entries from the virtual example above and assign both of them to the same control panel (on different buttons), if REM001 is selected with it's button, the REM 1 button is tallied green. Now if DAT001 is selected with it's button, the DAT 3 button is tallied amber, while the REM001 button remains green. The DAT001 button will stay tallied when other sources are selected as long as those sources are assigned to level 1, or 3, and not level 2.

When a button is selected with levels 1, and 2 active the DAT001 audio source button is turned off, as the primary switches both levels of crosspoints.

Conversely, if REM 1 (green tally) is selected, and DAT 3 (amber tally) is selected, and another level 2 only source is selected, say DAT 2, the DAT 3 amber tally will extinguish, and the DAT 2 button will now be tallied amber. The REM 1 green tally will remain on, unchanged.

A final note on figure 7.

This is a two dimensional drawing depicting a 3 dimensional object. Therefore the top half of the drawing represents the X axis, the bottom half the Y axis, and from left to right the Z axis.

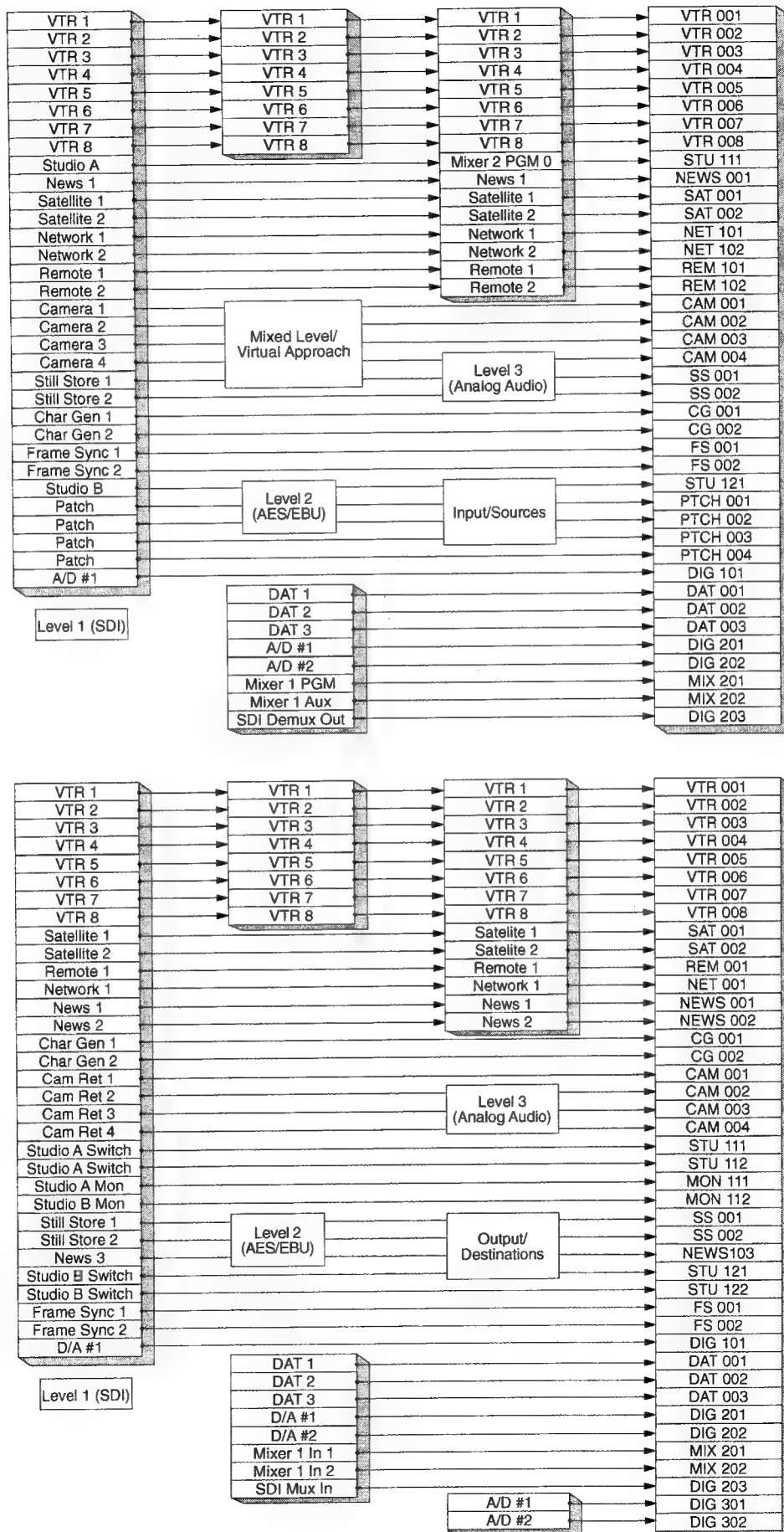


Fig. 7

Now select suitable names for sources/destinations using Type name, and number and enter them in the IN/OUT list of each routing switcher (menu item [C]).

Remember that you have to attention to the ins, and outs of routing switchers on all levels when you build this list.

Example :

#### VIDEO ROUTER SOURCE

Connected to	Connector	Source Name
CAMERA-1	17	017=CAM001
CAMERA-2	18	018=CAM002
VTR-1	1	001=VTR001
VTR-2	2	002=VTR002

#### VIDEO ROUTER DESTINATION

Connected to	Connector	Destination Name
VTR-1	1	001=VTR001
VTR-2	2	002=VTR002
VTR-3	3	003=VTR003
VTR-4	4	004=VTR004

#### Note

After destination (crosspoint/output) names have been set, the Protect mode may be implemented for that destination (crosspoint can't select another input).

After source (inputs) names have been set, the Secret mode may be implemented for the source (input not selectable by control panels).

Both of these modes can be only be set, or disabled via the terminal.

### 3. Set Level Table (Menu Item [E])

This is the step where you assign what levels you want each name or label to be assigned to. You also assign the names of the various levels (here SDI, AES, and AUD are used).

The information entered here was derived from figure 7.

		1=SDI	2=AES	3=AUD	4=
001	VTR001	SDI	AES	AUD	....
002	VTR002	SDI	AES	AUD	....
003	VTR003	SDI	AES	AUD	....
004	VTR004	SDI	AES	AUD	....
005	VTR005	SDI	AES	AUD	....
006	VTR006	SDI	AES	AUD	....
007	VTR007	SDI	AES	AUD	....
008	VTR008	SDI	AES	AUD	....
009	SAT001	SDI	....	AUD	....
010	SAT002	SDI	....	AUD	....
011	REM001	SDI	....	AUD	....
012	NET001	SDI	....	AUD	....
013	NEWS001	SDI	....	AUD	....
:	:	:	:	:	:
:	:	:	:	:	:
035	DIG203	....	AES	....	....
036	MIX201	....	AES	....	....
037	MIX202	....	AES	....	....
038	DIG203	....	AES	....	....
039	DIG301	....	....	AUD	....
040	DIG302	....	....	AUD	....

#### Note

Delete levels not used so that these levels do not show on panels, or displays that use levels. The deleted levels are displays as "....".

#### 4. Physical Assignment (Menu Item [L])

Now we actually associate the labels or names to a physical routing switcher input or output. Assign the physical source/destination number and the physical level to the virtual source/destination name and the virtual levels using the menu item [L : SET PHYSICAL ASSIGNMENT].

Again refer to figure 7.

PHYSICAL NUMBER ASSIGNMENT				DVS-V3232B V2.10		STATION NUMBER 1		
SOURCE		LEVEL						
No.	NAME	VID	AES	AUD	4	5	6	7
001	VTR001	001-1	001-2	001-3	...	...	...	...
002	VTR002	002-1	002-2	002-3	...	...	...	...
003	VTR003	003-1	003-2	003-3	...	...	...	...
004	VTR004	004-1	004-2	004-3	...	...	...	...
005	VTR005	005-1	005-2	005-3	...	...	...	...
006	VTR006	006-1	006-2	006-3	...	...	...	...
007	VTR007	007-1	007-2	007-3	...	...	...	...
008	VTR008	008-1	008-2	008-3	...	...	...	...
009	STU111	009-1	...	009-3	...	...	...	...
010	NEWS001	010-1	...	010-3	...	...	...	...
011	SAT001	011-1	...	011-3	...	...	...	...
:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:
017	CAM001	017-1	...	...	...	...	...	...
018	CAM002	018-1	...	...	...	...	...	...
:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:
033	DAT001	...	009-2	...	...	...	...	...
034	DAT002	...	010-2	...	...	...	...	...
035	DAT003	...	011-2	...	...	...	...	...
036	DIG201	...	012-2	...	...	...	...	...
037	DIG202	...	013-2	...	...	...	...	...
038	MIX201	...	014-2	...	...	...	...	...
039	MIX202	...	015-2	...	...	...	...	...
040	DIG203	...	016-2	...	...	...	...	...

#### Notes

1. Create a similar table for the destination side (use F5 on the terminal setup menu [L] screen to toggle between source/destination)
2. To delete an entry in menu item [L], press the **Ctrl** - **P**.

This step can be confusing because you associate the input labels with physical routing switcher inputs, along with output labels with physical outputs. You need to tell the primary which physical X row of crosspoints feeding an output belong with each output name or label, along with which physical Y column of crosspoints fed by an input belong with each input name or label. To visualize, look at figures 2, 3, or 4.

#### Note

When BKPF-R70 is used as the primary station, all contents that have been set are cleared when "A : /CLR-DATA/SBUS\_LVG\_DAT" which is supplied with BZR-10.

When number of items to set is smaller than number of items to clear, the procedure of clearing all items once and setting all items from the very beginning is more efficient.

Additionally, an individual routing switcher can be divided in 2, or more virtual routing switchers. This means that one level can be made to look like 2, or more levels. In our example our 3 level routing switcher could have the AES/EBU routing switcher split into 2 virtual levels. Our 3 routing switcher system would now have 4 levels.

Why would you want to do this? If you have an AES/EBU routing switcher that handles 2 AES/EBU audio programs per digital signal, but your plant uses 4 channels, this means it takes 2 AES/EBU signals for 4 channels. As before, there would be many times that you would want to switch these together, and many times you would not. Also, in many cases you would have only one AES/EBU audio frame. Therefore, AES/EBU Channels 1/2 would arrive at one input while AES/EBU Channels 3/4 would arrive at another input of the same routing switcher. You could use phantoms (step 8) to link these inputs together when desired, or you could create 2 distinct levels for one physical routing switcher frame using menu item [L]. One level could be known as A1/2, and the second A3/4. Entries to do this might look like the examples below.

PHYSICAL NUMBER ASSIGNMENT				DVS-V3232B V2.10		STATION NUMBER 1		
SOURCE		LEVEL						
No.	NAME	VID	A12	A34	4	5	6	7
001	VTR001	001-1	001-2	016-2	...	...	...	...
002	VTR002	002-1	002-2	017-2	...	...	...	...
003	VTR003	003-1	003-2	018-2	...	...	...	...
004	VTR004	004-1	004-2	019-2	...	...	...	...
005	VTR005	005-1	005-2	020-2	...	...	...	...
006	VTR006	006-1	006-2	021-2	...	...	...	...
007	VTR007	007-1	007-2	022-2	...	...	...	...
008	VTR008	008-1	008-2	023-2	...	...	...	...

PHYSICAL NUMBER ASSIGNMENT				DVS-V3232B V2.10		STATION NUMBER 1		
SOURCE		LEVEL						
No.	NAME	VID	A12	A34	4	5	6	7
001	VTR001	001-1	001-2	002-2	...	...	...	...
002	VTR002	002-1	003-2	004-2	...	...	...	...
003	VTR003	003-1	005-2	006-2	...	...	...	...
004	VTR004	004-1	007-2	008-2	...	...	...	...
005	VTR005	005-1	009-2	010-2	...	...	...	...
006	VTR006	006-1	011-2	012-2	...	...	...	...
007	VTR007	007-1	013-2	014-2	...	...	...	...
008	VTR008	008-1	015-2	016-2	...	...	...	...

This is a good place to point out that physical crosspoint usage does not have to be in numerical order.

PHYSICAL NUMBER ASSIGNMENT				DVS-V3232B V2.10		STATION NUMBER 1		
SOURCE		LEVEL						
No.	NAME	VID	A12	A34	4	5	6	7
001	VTR001	005-1	032-2	031-2	....	....	....	....
002	VTR002	006-1	030-2	029-2	....	....	....	....
003	VTR003	007-1	028-2	027-2	....	....	....	....
004	VTR004	008-1	026-2	025-2	....	....	....	....
005	VTR005	001-1	008-2	007-2	....	....	....	....
006	VTR006	002-1	006-2	005-2	....	....	....	....
007	VTR007	003-1	004-2	003-2	....	....	....	....
008	VTR008	004-1	002-2	001-2	....	....	....	....

## 5. Phantoms (Menu Item [H])

Now we will create any necessary phantoms. First we must define the phantom globally, and then allow its usage by individual control panels. A phantom allows you to have a number of outputs select new inputs all at once.

An instance of a global in our example would be the selection of input SAT001 (SDI level and the Analog audio level) to output VTR001, and DIG201 (AES level) to output VTR001. We could call this phantom SAT999. Its entry as a global phantom would look like this

(1) In the top of menu item [H] we would assign our name to a numbered label:

0001 SAT999	0002 .....	0003 .....	0004 .....
0005 .....	0006 .....	0007 .....	0007 .....

(2) Once the name is assigned we are in an edit menu, where we actually assign inputs to outputs:

	1=SDI	2=AES	3=AUD
VTR001 < SAT001	1	....	3
VTR001 < DIG201	....	2	....

Up to 4096 crosspoint changes can be stored among the Global phantoms.

For a control panel to be able to use a global phantom, that secondary station must be called (menu item [R]), and the name of the global phantom loaded into its phantom table. Up to 57 crosspoint \*1 changes can be stored among each secondary stations (control panels) phantoms.

Local phantoms may be created in each control panel. Below is an example of a local phantom residing in a control panels phantom table :

SONY ROUTING SYSTEM SETUP MENU		BKS-R3206 V3.11	STATION NUMBER 4
SET PHANTOM TABLE (PHANTOM:DESTINATION<SOURCE-LEVEL) (G. PHANTOM NAME:NUMBER)			
SAT999:0001	CAM999:CAM001<STU111 -1	CAM999:CAM002<STU111 -1	
CAM999:CAM003<STU111 -1	CAM999:CAM004<STU111 -1	.....<..... -.	
.....<..... -.	.....<..... -.	.....<..... -.	
.....<..... -.	.....<..... -.	.....<..... -.	

We can see here that our global phantom SAT999 is the first entree. The 0001 that trails SAT999 means that this global phantom is the first entry in our global phantom table (menu item [H]). Next we can see that locally (only at this control panel) we have defined a local phantom called CAM999. It selects the Studio A (STU111) input, and sends it to our 4 camera return outputs (CAM001, etc.) whenever it is selected. The “-1” means that level 1 (SDI) is switched.

SAT999, and CAM999 could be assigned to buttons on this control panel just like any other source, or destination name could be.

\*1 : Up to 64 crosspoint changes can be stored in BKS-R1607/R1608/R3209/R3210 of Ver. 1.10.



## 6. Decide Remote Control Units Can Be Active on the S-BUS

(1) Available Stations (Menu Item [F])

Make secondary stations available by setting “E” on the menu item [F : SET ACTIVE UNIT NUMBER]. The stations that are enabled will be polled by the primary, for panel activity, and status updates.

ENABLE	ACTIVE UNIT FOR STATION NUMBER	DVS-V3232B V2.10	STATION NUMBER
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		
001-020	M E E E E E E E		
021-040			

### Note

Before this setting each secondary station has to have its ID set using the dip-switch on the back of the control panel. The primary station has ID=1, secondary stations should have ID=2 or later. For your reference, ID-00 is the test number, and ID-255 is the global number. Be noted that both of them cannot be used.

## (2) Detection of Stations (Menu Item [Z])

If you set “?” to a ID location in the menu item [Z], the primary station will display the corresponding model code of that location and display a warning if communication is interrupted.

SET UNIT DETECTABLE										DVS-V3232B V2.10					STATION NUMBER 1					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
001-020	M 03 ? 15 04 ? ? ?																			
021-040																				
01: DVS-V1616		02: DVS-V3232		03: DVS-A3232		04: BKS-R1601		05: BKS-R3202												
06: BKS-R3203		07: BKS-R3281		08: DVS-V6464		09: BKS-R5000		10: DVS-RS1616												
11: DVS-TC3232		12: BKDM-5080		13: BKS-R3204		14: BKS-R3205		15: BKS-R3206												
16: BKS-R3280		17: BZR-1000		18: DVS-V3232B		19: DVS-V6464B		20: BKDS-7700												

## Notes

1. This menu is used with BZR-10 to select the secondary stations for saving the data. BZR-10 uploads the data of the secondary stations only selected with the “?” mark.
2. BZR-1000 software can not be used when “?” mark is set on in this menu on secondary stations using this menu. Continuous “System Event Has Occurred” error messages will be displayed in the BZR-1000 GUI if “?” is set for any secondary stations.
3. Once a “?” is entered you must exit, and re-enter this menu to see the communications result. The model code is displayed in “?”.

## 7. Inhibit Crosspoint Table (Menu Item [M])

Set invalid crosspoint table for the specified crosspoints that will not be allowed to be selected by various outputs INHIBIT TABLE on the primary station.

On the table "X" means valid crosspoint, and "-" means invalid crosspoint.

SET INHIBIT TABLE		DVS-V3232B V2.10						STATION NUMBER 1
DEST.	SOURCE							
001	01--08	09--16	17--24	25--32	33--40	41--48	49--56	
VTR001	-X-XXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	
VTR002	XXX-XXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	
VTR003	XXXX-XXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	
VTR004	XXXXX-XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	

Be careful that destination cannot select a source which makes up a loop in which the destination becomes the signal generating source in order to avoid potential operational mistake.

In the example here the output VTR001 can not select input 1 (VTR001), etc.

## 8. Tie Line Management (Menu Items [N] & [O])

This comes into play mainly if you have different types of serial digital data. Such as having both 4fsc, and 4:2:2 signal streams in the same routing switcher level. By using the menu item [R : CALL SECONDARY STATION] you can have the primary call itself, and configure the primary to handle either standard in groups of 8 inputs, and outputs. The same can be done by calling secondary stations on the same level.

If you have both types of signal you probably need to convert from one standard to the other often. To prevent the need to have many converters, you can set up the system recursively re-route serial data of one type back into the routing switcher with a limited number of converters between routing switcher out and routing switcher in. (See figure 8.)

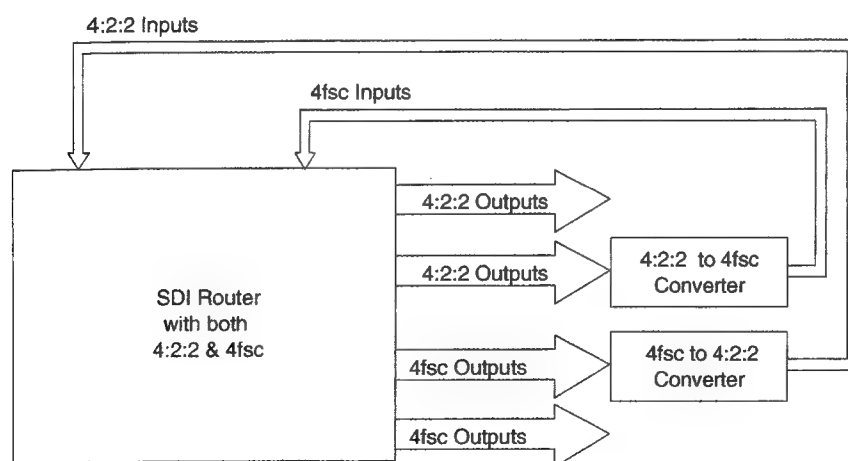


Fig. 8

Instead of one large routing switcher, there are often 2 separate routing switchers. One handling 4:2:2, and the other 4fsc. The output of the 4:2:2 would cascade through the 4:2:2 to 4fsc converters, and on to the inputs of the 4fsc routing switcher. The opposite configuration would be set up for going from 4fsc to 4:2:2.

What is done here is that groups of inputs are combined in a Source Name group, along with groups of outputs known as Destination Name groups. Net (Path) Groups are then created, each one being a list of routing switcher outs to routing switcher in's to be used.

When a input in a source group is selected, or an output in a destination group, the routing switcher looks at successive paths (their order as entered in each path group) until it finds an unused one.

**Note**

Each Source, Destination, and Net group can have up to 4 entries in it.

There can be a total of 20 Source, and 20 Destination groups.

There can be up to 40 Net groups.

Each Source and Destination group are tied together by 1 Net group.

Up to 3 routing switchers, or 2 recursive paths into 1 routing switcher can be supported.

Source Group	Net Group	Destination Group
S001: IN003	N001: OUT003-IN041	D001: OUT033
: IN004	: OUT004-IN042	: OUT034
: IN005	: OUT005-IN043	: OUT035
: IN006	: OUT006-IN044	: OUT036
S002: IN010	N002: OUT023-IN051	D002: OUT056
: IN015	: OUT024-IN052	: OUT057
: IN023	: OUT025-IN053	: OUT058
: IN027	: OUT026-IN054	: OUT059
PATHS		
1: S001-N001-D001		
2: S002-N002-D001		

## 9. Description Name (Menu Item [J])

In addition to Type + Number names, letter names (16 letters can be displayed on the BKS-R3281, most through only display 7) can be used.

This is called a "Description name".

To set to Description names mode, select DESCRIP.NAME using the menu item [J : NAME STYLE]. Everytime [J] is selected in the System Setup Menu the name mode toggles between Type + Number, and Description name modes.

After [J] has been selected for the first time, go back to menu items [C] and [D] and enter the descriptive names, if desired.

SOURCE NUMBER	TRANSCODE	DVS-V3232B V2.10	STATION NUMBER 1
001=VTR001	ProgVTR	002=VTR002	SpotVTR
003=VTR003	BkupVTR	004=VTR004	Net-Diy
:	:	:	:
017=CAM001	Pete	018=CAM002	Mary
019=CAM003	Tom	019=CAM004	John

### Note

The description name can be used repeatedly for the sources and destinations.

## 10. Control Panel Setup (Menu Item [R])

Each individual control panel is contacted, and programmed by selecting [R] in the setup menu, and then by entering the S-BUS address of the desired panel. If the control panels are enabled in the menu item [Z : SET UNIT DETECTABLE], this might help you identify the panels address in question. If the address for the desired panel needs further search select the menu item [X : DISPLAY S-BUS COMMUNICATIONS], and command a crosspoint change from the panel in question, and observe the address indicated by the S-BUS activity.

Once the menu page of the control panel is displayed select the menu item [Z : SET PANEL STATUS]. From this sub-menu you can configure which buttons on the panel are inputs or output selects. Also whether this panel operates alone or in conjunction with other panels are determined in this menu.

Next select the menu item [N : SET PANEL TABLE]. Using this sub-menu you assign input/output labels, or phantoms to the appropriate switches. (This setting is not necessary in the case of X-Y control.)

If the panel being programmed is a BKS-R3202, or a BKS-R3206 select the menu item [O : SET AVAILABLE DESTINATION]. On BKS-R3202 and BKS-R3206 all sources and destinations can be selected. To limit potential operational mistakes destinations which may be controlled can be filtered. In BKS-R3210 and BKS-R1607, a setting which limits arbitrary selection of sources is possible using **Ctrl** – **F**.

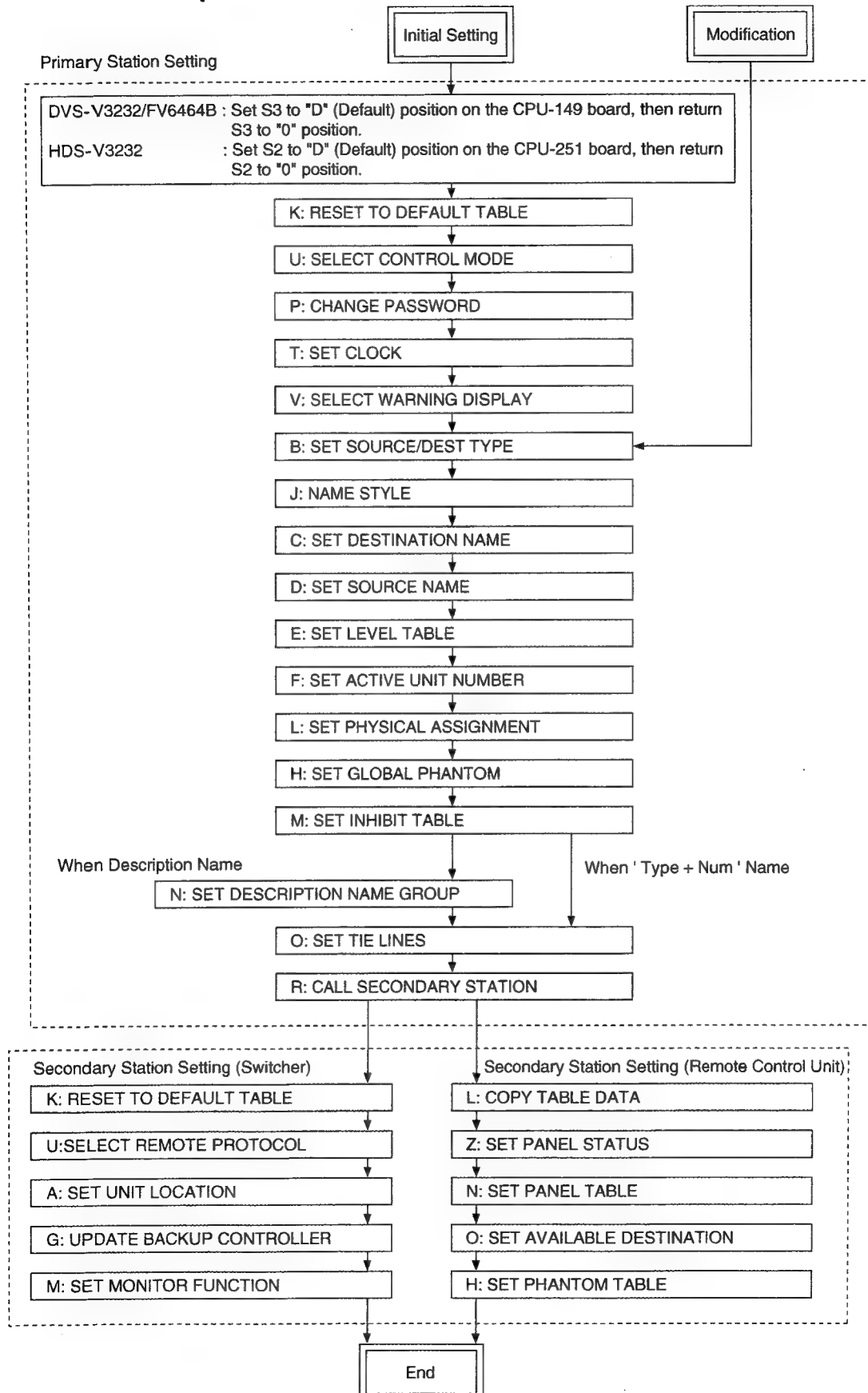
When there are several control panels with similar, or identical setups you can use the menu item [L : COPY TABLE DATA] to copy setup data from one control panel to another.

### Note

Use menu item [L : COPY TABLE DATA] from the panel you will copy data to!

Once you have copied the setup to a new panel you can edit that panels settings through the sub-menus as before.

## 4-5. Flowchart of Setup



## 4-6. Setting Up BKPF-300/301/350/351

1. Set the switch S1-3 on BKPF-300/301/350/351 to "OFF (TERMINAL)" position.
2. Select the menu item [R: CALL SECONDARY STATION] from the menu screen of primary station, and call BKPF-300/301/350/351.

The following screen appears.

Model name    Software version indication

SONY ROUTING SYSTEM SETUP MENU    BKPF-300    VX.XX    STATION NUMBER XXX    ← Station address value

SOURCE No: 0001 - 0008    DESTINATION No: 0001    LEVEL No: 1

SWITCHING FIELD: ASYNC    SDI FORMAT: 4:2:2

Ctrl-D : RETURN    Ctrl-E : RETURN TO MENU

(Example of BKPF-300)

- ① SOURCE LOCATION of equipment. Input range is set here.
  - ② DESTINATION LOCATION of equipment. Output range is set here.
  - ③ LEVEL of equipment is set here.
  - ④ The MATRIX switching timing is set here. (Select either ASYNC or FIELD.)
  - ⑤ The SDI format is set here. (Available in BKPF-300 only.)  
(Select a type from three formats of 4: 2: 2, 4fsc NTSC or 4fsc PAL.)
3. Set the above described items from ① to ⑤.
    - (1) Set the items from ① to ③ as follows. Select an area to modify using the cursor key. Enter any desired value using the numeric keys on the control terminal.
    - (2) Set the items ④ and ⑤ as follows. Select an area to modify using the cursor key, and press **Enter**.  
Every pressing of **Enter** increments the preset values in order.
  4. Press **Ctrl** - **D** to return to the menu screen of primary station from the setting screen.





## Section 5

### System Settings

#### 5-1. Setting Items of the Primary Station

##### A: DISPLAY CONTROL AREA A: DISPLAY UNIT LOCATION

###### Purpose

The menu items [A : DISPLAY CONTROL AREA] and [A : DISPLAY UNIT LOCATION] are used to check the source and destination area of the whole routing system to be controlled by the primary station.

###### Checking Procedure

1. Select menu item [A].
2. Control area is displayed as shown below.  
Press **Ctrl** – **E** to return to the menu screen.

DISPLAY CONTROL AREA	DVS-V6464B V2.10 STATION NUMBER 1
SOURCE No 0001-0512 DESTINATION No 0001-0512	
Ctrl-E: RETURN TO MENU	

The following table lists the control area and setting area for each model.

Model	Control Area		Mapping Area
	Input control area	Output control area	Setting area
DVS-RS1616	1 to 512	1 to 512	1 to 128
DVS-TC3232	1 to 512	1 to 512	1 to 256
BVS-V3232			
BVS-A3232			
DVS-V1616	1 to 512	1 to 512	1 to 512
DVS-V3232B			
DVS-V6464B			
DVS-A3232			
BKPF-R70			
HDS-V3232			

###### Note

The control area of the menu item [A] means the control area of the whole routing system, and not the input/output area of the primary station.

To set the source/destination location of the primary station, call the secondary station menu screen by selecting menu item [R] and type the station number **1**, and then select the menu item [A] of the secondary station.

## B: SET SOURCE/DEST TYPE

### Purpose

This menu is used to set the type name of the source destination and global phantom table.

The menu makes the management of source/destination easier.

### Setting Procedure

1. Select menu item [B].
2. Use the cursor or alphabet/numerical keys and select the codes for the type name to be registered from the sixteen character codes (0 to 9 and A to F) displayed on the screen.
3. When **[Ctrl] - [P]** is pressed, the setting of the type name will be canceled, and "... " will be displayed.
4. When **[Enter]** is pressed, the type name can be set. If **[Enter]** is pressed again before entering the type name, the registration will be deleted and the cursor moves to the next position.
5. Use the alphabet and numerical keys to enter the type name (within four letters).
6. When **[Enter]** is pressed, the type name will be set and the cursor moves to the next position. If **[Ctrl] - [F]** is pressed before the setting, the original type name will be returned.
7. When **[Ctrl] - [E]** is pressed, the menu screen will be displayed.

SOURCE/DEST/PHANTOM TYPE DVS-V6464B V2.10 STATION NUMBER 1															
0=VTR	1=VCR	2=AUX	3=FLM	4=TEST	5=STU	6=CAM	7=REM								
8=CG	9=NETA	A=ENG	B=ED	C=FS	D=SS	E=BARS	F=PHAN								
Ctrl-E: RETURN TO MENU															

Example of Setting Screen

## C: SET DESTINATION NAME

### Purpose

This menu is used to set the destination name and protect function of each output.

A number between 001 to 999 and a type name set at the menu item [B : SET SOURCE/DEST TYPE] can be set to each destination. Description name can be set by changing the name mode at the menu item [J : NAME STYLE]. For details of setting the name, refer to [J] in the menu.

The protect function (to protect the output signal from being controlled from the remote control unit) prevents the source signal selected for the specified destination from being switched by other remote control units.

(During recording and ON AIR, interrupting operations can be prevented.)

### Setting Procedure (Destination Name)

1. Select menu item [C].
2. Press the cursor keys or the function keys to select the destination number.
3. When **[Ctrl] - [P]** is pressed, the set destination name will be deleted and "... " will be displayed.
4. When **[Enter]** is pressed, the destination name can be typed. If **[Enter]** is pressed again before entering a name, the registration will be deleted and the cursor moves to the next position.
5. Select the code assigned to each type name, and use the numerical keys to enter the destination name.
6. When **[Enter]** is pressed, the destination name will be set and the cursor moves to the next position. If **[Ctrl] - [F]** is pressed before the setting, the original destination name will be returned.
7. When **[Ctrl] - [E]** is pressed, the menu screen will be displayed.

**Note**

1. The same destination name cannot be registered at more than two destinations. If this is done, an error message will be displayed at the bottom of the screen.

Example: "VTR001 is used already; Ignored"

↑  
destination name

2. When the Description name mode is selected at menu item [J], both Description name and "Type + number" name will be displayed.

In this menu, Description name is used for setting.

**Setting Procedure (Protect Function)**

1. Select the destination name using the cursor, and then press [P]. "P" is displayed after the selected destination name and the protect function is set.  
Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**

1. If a destination name is reversed, it means the protect function is set with a control terminal and not with a remote control unit.
2. To change the protected destination name, release the protection first before beginning the modification process.

DESTINATION NUMBER TRANSCODE				DVS-V6464B V2.10 STATION NUMBER 1			
001=VTR001 P	002=VTR002	003=VTR003 P	004=VTR004	005=VTR005	006=VTR006	007=VTR007	008=VTR008
009=VCR101	010=VCR102	011=VCR103	012=VCR104	013=NETA001	014=NETA002	015=NETA003	016=NETA004
017=.....	018=.....	019=.....	020=.....	021=.....	022=.....	023=.....	024=.....
025=.....	026=.....	027=.....	028=.....	029=.....	030=.....	031=.....	032=.....
033=.....	034=.....	035=.....	036=.....				
0=VTR	1=VCR	2=AUX	3=FLM	4=TEST	5=STU	6=CAM	7=REM
8=CG	9=NETA	A=ENG	B=ED	C=FS	D=SS	E=BARS	F=PHAN
F1:SEARCH				F2:JUMP			
F3:PgUp				F4:PgDn			
P:PROT.				Ctrl-E:RETURN TO MENU			

Example of Setting Screen

**Operating Function Keys**

**F1** : SEARCH (To move the cursor to the desired destination name)

1. When [F1] is pressed, "Please Input DEST. NAME =" will be displayed.
2. Input the destination name to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired destination name.

**Note**

When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.

1. When [F1] is pressed, "Please Input NAME =" will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. When [Enter] is pressed, the Description name entered will be searched.
4. If the desired name does not exist in the screen, press [F1] again.

**F2** : JUMP (To move the cursor to the destination number)

1. When [F2] is pressed, "Please Input DEST. NUMBER =" will be displayed.
2. Input the destination number to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired number.

**F3** : Pg Up

When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4** : Pg Dn

When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

## D: SET SOURCE NAME

### Purpose

This menu is used to set the source name and secret function (inhibition of source selection with a remote control unit).

A number between 001 to 999 and a type name set at the menu item [B : SET SOURCE/DEST TYPE] can be set to each source name. Description name can be set by changing the name mode at menu item [J : NAME STYLE] in the menu. For details of setting the name, refer to [J] in the menu.

The secret function is necessary when a source signal should not be taken. When secret is set, remote control units cannot select the source signal.

### Setting Procedure (Source Name)

1. Select menu item [D].
2. Press the cursor keys or the function keys, to select the source number.
3. When **[Ctrl] - [P]** is pressed, the source name will be deleted.
4. When **[Enter]** is pressed, the source name can be typed. If **[Enter]** is pressed before entering a name, the registration will be deleted and the cursor moves to the next position.
5. Select the code assigned to each type name, and use the numerical keys to enter the source name.
6. When **[Enter]** is pressed, the source name will be set and the cursor moves to the next position. If **[Ctrl] - [F]** is pressed before the setting, the original source name will be returned.
7. When **[Ctrl] - [E]** is pressed, the menu screen will be displayed.

### Note

1. The same name cannot be given to assigned to two or more sources. If this is done, an error message will be displayed at the bottom of the screen.

Example: "VTR001 is used already; Ignored"  
                     ↑  
                     source name

2. When the Description name is selected at menu item [J], the screen will display the Description name in addition to the "Type + Number" name. In this menu, the Description name is used for settings.

### Setting Procedure (Secret Function)

1. Select the source name using the cursor, and press **[S]**. "S" is displayed after the source name, and the secret is set. Secret cannot be set for a number whose source name has not been assigned.
2. To release the secret function, select the source name and press **[S]** once again. When the password is required, input the password and press **[Enter]**. The secret will be released.

### Note

For details on password settings, refer to the menu item [P : CHANGE PASSWORD].

SOURCE NUMBER		TRANSCODE		DVS-V6464B V2.10 STATION NUMBER 1			
001=VTR001	002=VTR002	003=VTR003	004=VTR004				
005=VTR005	006=VTR006	007=VCR101	008=VCR102 S				
009=AUX001 S	010=AUX002	011=CAM001 S	012=CAM002				
013=CG001	014=NETA001	015=SS001	016=BARS001				
017=.....	018=.....	019=.....	020=.....				
021=.....	022=.....	023=.....	024=.....				
025=.....	026=.....	027=.....	028=.....				
029=.....	030=.....	031=.....	032=.....				
033=.....	034=.....	035=.....	036=.....				
0=VTR	1=VCR	2=AUX	3=FLM	4=TEST	5=STU	6=CAM	7=REM
8=CG	9=NETA	A=ENG	B=ED	C=FS	D=SS	E=BARS	F=PHAN
F1:SEARCH F2:JUMP F3:PgUp F4:PgDn S:SECRET Ctrl-E:RETURN TO MENU							

Example of Setting Screen

---

### Operating Function Keys

**F1** : SEARCH (To move the cursor to the desired source name)

1. When **F1** is pressed, "Please Input SOURCE NAME =" will be displayed.
2. Input the source name to be retrieved.
3. When **Enter** is pressed, the cursor will move to the desired source name.

#### Note

When menu item [J] is set to the Description name mode, **F1** (SEARCH) will have the following functions.

1. When **F1** is pressed, "Please Input \* \* \* \* NAME =" will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. When **Enter** is pressed, the Description name entered will be searched.
4. If the desired name does not exist in the screen, press **F1** again.

**F2** : JUMP (To move the cursor to the source number)

1. When **F2** is pressed, "Please Input SOURCE NUMBER =" will be displayed.
2. Input the source number to be retrieved.
3. When **Enter** is pressed, the cursor will move to the desired number.

**F3** : Pg Up

When **F3** is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4** : Pg Dn

When **F4** is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

## E : SET LEVEL TABLE

### Purpose

This menu is used to assign the level name and the level to each destination name. Up to eight levels can be set. In this menu, set only the necessary levels. If levels which have not actually been used are set, the response of the routing switcher system will become slower. Delete all levels not needed.

After setting this menu item, the selected levels can be checked by remote control unit.

### Setting Procedure (Setting of Level Names)

1. Select menu item [E].
2. Press the cursor keys or the function keys to select the level number 1 to 8.
3. When [Enter] is pressed, the level name can be assigned.
4. Enter the level name using the alphabet and numerical keys (within four characters).
5. When [Enter] is pressed, the level name will be set. If [Ctrl] - [F] is pressed before the setting, the original level name will be returned.
6. When [Ctrl] - [Z] is pressed, the level 1 to 8 will be assigned to all destination names.
7. When [Ctrl] - [E] is pressed, the menu screen will be returned.

### Setting Procedure (Level Setting - Release)

1. Select menu item [E].
2. Use the cursor keys to select the destination level.
3. When [Enter] is pressed, the level name will be deleted and displayed as "..." and the level setting will be released.
4. You can search the level with the function keys.

LEVEL TABLE		DVS-V6464B V2.10 STATION NUMBER 1							
		1=VID	2=A1	3=A2	4=4	5=5	6=6	7=7	8=8
No.	out	VID	A1	A2	4	5	6	7	8
001	OUT001	VID	A1	A2	4				
002	OUT002	VID	A1	A2	4				
003	OUT003	VID	A1	A2	4	5	6	7	8
004	OUT004	VID	A1	A2	4	5	6	7	8
005	OUT005	VID	A1	A2	4	5	6	7	8
006	OUT006	VID	A1	A2	4	5	6	7	8
007	OUT007	VID	A1	A2	4	5	6	7	8
008	OUT008	VID	A1	A2	4	5	6	7	8
009	OUT009	VID	A1	A2	4	5	6	7	8
010	OUT010	VID	A1	A2	4	5	6	7	8
011	OUT011	VID	A1	A2	4	5	6	7	8
012	OUT012	VID	A1	A2	4	5	6	7	8
013	OUT013	VID	A1	A2	4	5	6	7	8
014	OUT014	VID	A1	A2	4	5	6	7	8
015	OUT015	VID	A1	A2	4	5	6	7	8
0=IN		1=OUT	2=...	3=...	4=...	5=...	6=...	7=...	
8=...		9=...	A=...	B=...	C=...	D=...	E=...	F=...	
F1:SEARCH		F2:JUMP		Ctrl-E:RETURN TO MENU					

Example of Setting Screen

### Operating Function Keys

**[F1]** : SEARCH (To move the cursor to the desired destination name)

1. When [F1] is pressed, "Please Input DEST NAME =" will be displayed.
2. Input the destination name to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired destination name.

#### Note

When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.

1. When [F1] is pressed, "Please Input NAME =" will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. When [Enter] is pressed, the Description name entered will be searched.
4. If the desired name does not exist in the screen, press [F1] again.

**[F2]** : JUMP (To move the cursor to the number of the desired destination)

1. When [F2] is pressed, "Please Input DEST NUMBER =", will be displayed.
2. Input the destination number to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired destination number.

#### Note

If the destination name is not set, the number of the destination will not be displayed.

## F : SET ACTIVE UNIT NUMBER

### Purpose

This menu is used to enable the units connected to the S-BUS data link to communicate.

### Setting Procedure

1. Select menu item [F].
2. Press the cursor keys to select the secondary station whose communication will be valid.
3. When **[Enter]** is pressed, the setting displayed will change ("E" → blank → "E"). Only the secondary stations displayed with "E" are valid. ("M" indicates the primary station.)
4. When **[Ctrl] - [E]** is pressed, the menu screen will be displayed.

### Note

As the response will become slower if there are many secondary stations, make the secondary stations not connected invalid.

"\*" indicates out of the control area.

ENABLE ACTIVE UNIT FOR STATION NUMBER DVS-V6464B V2.10 STATION NUMBER 1																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	+																			
001-020	M	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
021-040	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
041-060	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
061-080	E	E	E	E	E															
081-100																				
101-120																				
121-140																				
141-160																				
161-180																				
181-200																				
201-220																				
221-240																				
241-254																				

\* \* \* \* \*

Ctrl-E: RETURN TO MENU

Example of Setting Screen

### Notes

1. Station ID of the primary station is always regardless of the DIP switch setting on the CPU board.
2. Station ID of the secondary station is determined with the DIP switch setting. Do not assign the same number on two or more units as station ID on both standard S-BUS and monitor S-BUS.  
Number that can be registered as secondary station ID are 2 to 254.

## G: UPDATE BACKUP CONTROLLER

### Purpose

This menu is used to copy the table data stored in the main CPU board of the primary station to the backup CPU board.

This setting is valid only when the backup CPU board is installed in the primary station.

### Setting Procedure

1. Select menu item [G]. The message "This process requires about n minutes. Execute? (y/n)" will be displayed at the bottom of the screen.  
Ver. 2.00 : n=5  
Ver. 1.00 : n=7
2. Table data copying is performed when **[Y]** is pressed. To cancel copying, press **[N]**.
3. After copying, "PROGRAM TABLE? (y/n)" may be displayed at the bottom of the screen. In this case, press **[Y]**.

### Notes

1. The ROM version of the main CPU board and that of the backup CPU board must be the same. If different versions are used, the unit may hang up due to copying. Remove the backup CPU board when this occurs. The above occurs because a new table data can not be run on the old version software.
2. It takes about seven minutes to copy the table data. The copy makes other operations slow.
3. The table data of transcode from RS-422A to S-BUS (set at the menu item [U] of a secondary station) is not copied to the backup CPU board.
4. When you copy the data of main CPU to backup CPU on the menu screen [G : UPDATE BACKUP CONTROLLER] of the primary station or a secondary station, you can abort the operation by pressing **[Ctrl] - [D]**.

However you should copy again for the data of the backup CPU is not correct if aborted. Even if you do not copy again, the data will be renewed in one hour approximately by the auto backup function.

H: SET GLOBAL PHANTOM

The phantom function switches several crosspoints together with one button pushing of a remote control unit. The crosspoints of different levels can be also switched with this function.

There are two kinds of phantoms such as local phantom and global phantom (refer to the menu item [H : SET PHANTOM TABLE] of secondary stations for local phantom).

In local phantom function, the phantom data is stored in a remote control unit, and the phantom name is assigned only on this remote control unit. In global phantom function, however, the phantom data is stored in the primary station, and it can be called by any remote control unit. The global phantom function can be set only when DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is assigned as the primary station.

The following describes how to set the global phantom data in the primary station. A maximum of 4095 crosspoints can be registered.

Setting Procedure

- 1. Select menu item [H]. The global phantom list will be displayed.
- 2. Select any global phantom number with the cursor or function key and press **Enter**. The edit screen will be displayed.  
When **Ctrl** - **E** is pressed, the menu screen will be displayed.

Operating Function Keys  
(Global Phantom Display)

- F1** : SEARCH (To move the cursor to the desired global phantom name)
- 1. When **F1** is pressed, "Please Input PHANTOM NAME =" will be displayed.
  - 2. Input the global phantom name to be retrieved.
  - 3. When **Enter** is pressed, the cursor will move to the desired name.

- F2** : JUMP (To move the cursor to the desired global phantom number)
- 1. When **F2** is pressed, "Please Input PHANTOM NAME =" will be displayed.
  - 2. Input the global phantom to be retrieved.
  - 3. When **Enter** is pressed, the cursor will move to the desired number.

- F3** : Pg Up  
When **F3** is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

- F4** : Pg Dn  
When **F4** is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

GLOBAL PHANTOM LIST				DVS-V6464B V2.10 STATION NUMBER 1 (4094 REMAIN)			
No.	NAME	No.	NAME	No.	NAME	No.	NAME
0001	GPHA001	0002		0003		0004	
0005		0006		0007		0008	
0009		0010		0011		0012	
0013		0014		0015		0016	
0017		0018		0019		0020	
0021		0022		0023		0024	
0025		0026		0027		0028	
0029		0030		0031		0032	
0033		0034		0035		0036	
0037		0038		0039		0040	
0041		0042		0043		0044	
0045		0046		0047		0048	
0049		0050		0051		0052	
0053		0054		0055		0056	
0057		0058		0059		0060	
0061		0062		0063		0064	
0=IN 1=OUT 2=... 3=... 4=... 5=... 6=... 7=...							
8=... 9=... A=... B=... C=... D=... E=... F=GPHA							
F1:SEARCH		F2:JUMP		F3:PgUp		F4:PgDn	
Ctrl-E:RETURN TO MENU							

Example of Global Phantom Screen



3. As the cursor is placed where the name is typed, press **[Enter]**. The input mode will be set.
4. Select the codes assigned to each type name and enter any number using the cursor. Press **[Enter]** key to set it. Press **[Ctrl] - [P]** to delete the phantom name.
5. Move the cursor to the place to input the destination and press **[Enter]**. The input mode will be set.
6. Input the destination name with the alphabet or numerical keys and press **[Enter]** to set it.
7. Input the source name in the same way as setting the destination name and press **[Enter]**.
8. Set the crosspoint level. Move the cursor to desired level and press **[Enter]**. The setting will be changed.  
Press **[Ctrl] - [E]**. The menu will return.

EDIT GLOBAL PHANTOM		DVS-V6464B V2.10 STATION NUMBER 1 (4094 REMAIN)							
0001	GPHA001								
LEVEL: 1=VID 2=A1 3=A2 4=4 5=5 6=6 7=7 8=8									
OUT001	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT002	<IN002 VID	A1	.....	.....	.....	.....	.....	.....	.....
OUT003	<IN001 VID	A1	A2	.....	.....	.....	.....	.....	.....
OUT004	<IN001 VID	A1	A2	4	.....	.....	.....	.....	.....
OUT005	<IN001 VID	A1	A2	4	5	.....	.....	.....	.....
OUT006	<IN001 VID	A1	A2	4	5	6	.....	.....	.....
OUT007	<IN001 VID	A1	A2	4	5	6	7	.....	.....
OUT008	<IN001 VID	A1	A2	4	5	5	7	8	.....
OUT009	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT010	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT011	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT012	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT013	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT014	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT015	<IN001 VID	.....	.....	.....	.....	.....	.....	.....	.....
OUT016	<IN001 VID	A1	.....	4	5	.....	7	8	.....
0=IN 1=OUT 2=..... 3=..... 4=..... 5=..... 6=..... 7=.....									
8=..... 9=..... A=..... B=..... C=..... D=..... E=..... F= GPHA									
F1:SEARCH F2:ADD F3:DELETE F4:DstLvl Ctrl-E:RETURN TO LAST MENU									

Example of Global Phantom Edit Screen

### Operating Function Keys (Global Phantom Edit Display)

**[F1]** : SEARCH (To move the cursor to any source name or destination name)

#### Note

When menu item [J] is set to the Description name mode, **[F1]** (SEARCH) will have the following functions.

1. When **[F1]** is pressed, "Please Input NAME =" will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. When **[Enter]** is pressed, the Description name entered will be searched.
4. If the desired name does not exist in the screen, press **[F1]** again.

**[F2]** : ADD (To add the row of crosspoints to be registered as the global phantom)

**[F3]** : DELETE (To delete the crosspoints)

1. Select the destination name to be deleted using the cursor.
2. Press **[F3]**.

**[F4]** : Dstlvl (To change the level of the crosspoint at the cursor to the level set at the menu item [E])

1. Select the destination name to be returned to the initial level using the cursor.
2. Press **[F4]**.

#### Note

When the name mode of menu item [J] is switched, the destination and source names displayed on the global phantom edit screen will change.

**J : NAME STYLE****Purpose**

This menu is used to switch the name styles of the destination and source.

The "Type + Number" name (Type + Num) or "Description" name (DESCRIP. NAME) can be set.

Names on the setting screen of menu items [C], [D], [E], [H], [L], [M], [N], [O], and [Q] are switched according to this menu.

**Setting Procedure**

1. Select menu item [J].
2. Press the alphabet key [J] and [Enter]. The message on the screen will change from "Type + Num" to "DESCRIP. NAME" each time this key are pressed.

• **Destination name setting procedure using the Description name**

3. Set menu item [J] to the Description name mode.  
Ex. [J : NAME STYLE (DESCRIP. NAME)]
4. Select menu item [C].
5. Move the cursor to the desired destination number.
6. When either [Enter] is pressed, the destination name can be typed. If the Description name is set already, delete it by [BS].
7. Enter the Description name using the alphabet keys or the numerical keys. When [Enter] is pressed, the Description name will be set.

**Note**

Up to sixteen characters can be input. Remote control units except BKS-R3281 will display until the seven characters. As the first seven characters are also used to distinguish the names, the unit may not operate properly if the same names are assigned for the first seven characters.

DESTINATION NUMBER TRANSCODE		DVS-V6464B V2.10 STATION NUMBER 1	
001=OUT001 P	1.....7.....	002=OUT002	1.....7.....
003=OUT003	DST-012	004=OUT004 P	Hong Kong
005=OUT005	London	006=OUT006 P	Market
007=OUT007	New York	008=OUT008	Tokyo
009=OUT009	Toront	010=OUT010 P	OUT008
011=OUT011	Net-2	012=OUT012	Net-1
013=OUT013	EDIT-5	014=OUT014	EDIT-2
015=OUT015	CG-8	016=OUT016	CG-A
017=OUT017 P	OUT017	018=OUT018	News-1
019=OUT019	Washington D.C.	020=OUT020	Mountain
021=OUT021	OUT021	022=OUT022	OUT020
023=OUT023	OUT023	024=OUT024	River
025=OUT025	OUT025	026=OUT026	OUT026
027=OUT027	OUT027	028=OUT028	OUT028
029=OUT029	Atlantic Ocean	030=OUT030	OUT030
031=OUT031	OUT031	032=OUT032	OUT032

[F1:SEARCH] [F2:JUMP] [F3:PgUp] [F4:PgDn] [F5:PASTE] Ctrl-E:RETURN TO MENU

**Operating Function Keys**

**[F1] : SEARCH** (To move the cursor to the desired destination name)

1. When [F1] is pressed, "Please Input DEST NAME =" will be displayed.
2. Input the destination name to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired destination name.

**[F2] : JUMP** (To move the cursor to the desired destination number)

1. When [F2] is pressed, "Please Input DEST NAME =" will be displayed.
2. Input the destination number to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired number.

**[F3] : Pg Up**

When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**[F4] : Pg Dn**

When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

**[F5] : PASTE** (To copy the Description name)

1. Move the cursor to the destination number to be copied.
2. Press [SPACE].
3. Move the cursor to the destination number to be pasted, and press [F5].

**Note**

Do not assign the same name to more than one destination.

• **Source name setting procedure using Description name**

3. Set menu item [J] to the Description name mode.  
Example:[J : NAME STYLE (DESCRIP. NAME)]
4. Select menu item [D].
5. Move the cursor to the desired source name.
6. When [Enter] is pressed, the Description name can be typed. If the Description name is set already, delete it by [BS].
7. Enter the Description name using the alphabet or numerical keys. When [Enter] is pressed, the Description name will be set.

## K: RESET TO DEFAULT TABLE

### K: DEFAULT TABLE

#### Purpose

This menu is used to initialize the table data. Do not perform this menu when modifying the table data.

#### Setting Procedure

1. Select menu item [K]. The message "RESET TO DEFAULT TABLE? (y/n)" will be displayed at the bottom of the screen.
2. Initialization is performed when [Y] is pressed. To cancel initializing, press [N].

#### Note

The table data will be lost when performing the menu item [K].

## L: SET PHYSICAL ASSIGNMENT

#### Purpose

Assign the physical numbers of the switcher to the destination numbers, source numbers and the levels of the virtual matrix.

Do not assign the same number.

#### Setting Procedure

1. Select menu item [L].
2. Each time [F5] is pressed, the setting screen will change as follows.  
Source number setting screen → destination number setting screen → source number setting screen.

#### • Source Number Setting Procedure

3. Select the source number setting screen.
4. Select the physical number and the level using the cursor, and assign them to desired source number and level on the virtual matrix. When [Enter] is pressed, the physical assignment can be typed.
5. Enter the physical number using numerical keys, and press [Enter].
6. Next, enter the physical level, and press [Enter] to set it.

If press [Ctrl] – [F] before setting, the physical number and level will be returned to the previous values.

If the physical number and physical level to be set has been already used, cancel their settings first before setting new ones.

To cancel, select the physical number and level to be canceled, and press [Ctrl] – [P].

### • Destination Number Setting Procedure

Press **[F5]** to set the destination number setting screen.  
Then, perform the same procedure as for source.

PHYSICAL NUMBER ASSIGNMENT									
DVS-V6464B V2.10 STATION NUMBER 1									
DESTINATION		LEVEL							
No.	NAME	VID	A1	A2	4	5	6	7	8
001	OUT001	001-1	001-2	017-3	001-4	001-5	001-6	032-7	...
002	OUT002	002-1	...	018-3	002-4	005-5	002-6	031-7	...
003	OUT003	003-1	003-2	019-3	003-4	011-5	003-6	030-7	...
004	OUT004	004-1	004-2	020-3	004-4	...	004-6	...	...
005	OUT005	005-1	005-2	...	005-4	021-5	005-6	028-7	...
006	OUT006	006-1	006-2	...	006-4	026-5	006-6	027-7	...
007	OUT007	007-1	007-2	...	...	...	007-6	...	...
008	OUT008	008-1	008-2	...	...	036-5	008-6	025-7	...
009	OUT009	009-1	009-2	...	...	041-5	009-6	024-7	...
010	OUT010	001-8	010-2	...	...	046-5	010-6	023-7	...
011	OUT011	002-8	011-2	...	...	051-5	011-6	022-7	...
012	OUT012	003-8	012-2	...	...	...	012-6	021-7	...
013	OUT013	004-8	013-2	...	...	013-5	013-6	...	...
014	OUT014	005-8	014-2	...	...	014-5	014-6	...	...
015	OUT015	006-8	015-2	...	...	...	015-6	...	...
016	OUT016	007-8	016-2	...	...	...	016-6	017-7	...
017	OUT017	008-8	...	...	...	017-5	017-6	016-7	...
018	OUT018	009-8	...	...	...	018-5	018-6	015-7	...

**[F1:SEARCH] [F2:JUMP] [F3:PgUp] [F4:PgDn] [F5:SOURCE] Ctrl-P:DELETE Ctrl-E:MENU**

Example of Setting Screen

### Operating Function Keys

- [F1]** : SEARCH {To move the cursor to the desired destination (source) name}
- When **[F1]** is pressed, "Please Input DEST (SOURCE) NAME =" will be displayed.
  - Input the destination (source) name to be retrieved.
  - When **[Enter]** is pressed, the cursor will move to the desired name.

#### Note

When menu item [J] is set to the Description name mode, **[F1]** (SEARCH) will have the following functions.

- When **[F1]** is pressed, "Please Input NAME =" will be displayed.
- Enter the Description name (within seven characters) from the head.
- When **[Enter]** is pressed, the Description name entered will be searched.
- If the desired name does not exist in the screen, press **[F1]** again.

- [F2]** : JUMP {To move the cursor to the desired destination (source) number}

- When **[F2]** is pressed, "Please Input DEST (SOURCE) NUMBER =" will be displayed.
- Input the destination (source) number to be retrieved.
- When **[Enter]** is pressed, the cursor will move to the desired number.

- [F3]** : Pg Up

When **[F3]** is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

- [F4]** : Pg Dn

When **[F4]** is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

- [F5]** : SOURCE (DEST.)

When **[F5]** is pressed, the number setting screen will change between the destination number setting screen and source number setting screen alternately.

### Notes

- The physical number is the input/output number specified at the menu item [A : SET UNIT LOCATION].
- The virtual input/output name and the virtual level name are assigned to the buttons on the remote control unit.

## M: SET INHIBIT TABLE

### Purpose

This menu is used to protect source numbers not to be selected for each destination.

When the secret function is set to a source name, the selected source cannot be output to all destinations. By using this menu, source numbers to be inhibited can be assigned for each destination.

### Setting Procedure

1. Select menu item [M].
2. Select the source number for each destination name using the cursor. When [Enter] is pressed, the setting will be switched.  
 "X" : Connectable crosspoint  
 "-" : Unconnectable crosspoint

SET INHIBIT TABLE

DVS-V6464B V2.10 STATION NUMBER 1

DEST.	SOURCE																		
001	01--08	09--16	17--24	25--32	33--40	41--48	49--56	57--64											
OUT001	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT002	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT003	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XX--XX	XXXX--X	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT004	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XX--XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT005	XXX-XXX	XXXXXXXX	X-----	-----	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
OUT006	XXXXXXXX	XXX-XXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT007	XXXXXXXX	XXXXXXXX	X-----	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT008	XXXXXXXX	XXXXXXXX	XX-----	XXXXXXXX	XXXXXXXX	XXXXXX--	-----XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
DEST.	SOURCE																		
009	01--08	09--16	17--24	25--32	33--40	41--48	49--56	57--64											
OUT009	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT010	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XX-----	-----XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT011	XXXX-XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XX-----	-----XX	XXXXXXXX	XX-XXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT012	XXXX-XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT013	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
OUT014	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XX-XXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
OUT015	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
OUT016	XXXXXXXX	XXXX-XX	XXXX-XX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX

F1:SEARCH

F2:JUMP

F3:LEFT

F4:RIGHT

Ctrl-E:RETURN TO MENU

[F1:SEARCH] [F2:JUMP] [F3:LEFT] [F4:RIGHT] Ctrl-E:RETURN TO MENU

Example of Setting Screen

### Note

The setting area for this menu is 512 × 512. Set this function (crosspoint disable setting function) within the size specified for the system used.

Excess crosspoints will be ignored automatically.

### Operating Function Keys

**[F1]** : SEARCH (To move the cursor to the desired destination name)

1. When [F1] is pressed, "Please Input DEST NAME =" will be displayed.
2. Input the destination name to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired name.

### Note

When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.

1. When [F1] is pressed, "Please Input NAME =" will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. When [Enter] is pressed, the Description name entered will be searched.
4. If the desired name does not exist in the screen, press [F1] again.

**[F2]** : JUMP (To move the cursor to the desired destination number)

1. When [F2] is pressed, "Please Input DEST NAME =" will be displayed.
2. Input the destination number to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired number.

**[F3]** : LEFT (To scroll to the next 64 sources on the left)

**[F4]** : RIGHT (To scroll to the next 64 sources on the right)

## N: SET DESCRIPTION NAME GROUP

### Purpose

To register the Description names required for each remote control unit, set the group of Description names. Up to eight such source and destination groups can be set. (Up to 160 names can be registered for one group.) The top half of the screen is for setting the group and the bottom half displays the list of Description names.

### Setting Procedure

1. Select menu item [N].
2. Move the cursor to the group number by pressing [B].
3. Enter the group number using the numerical keys, and press [Enter] to set it.
4. Press [F1] to move the cursor to the lower side of screen.
5. Select a number and press [Enter]. The Description name will be copied to the space of the lowest number on the group setting screen.

To erase the Description names on the group setting screen, move the cursor to the number and press [BS], [DEL] or [Ctrl] - [P].

DESCRIPTION NAME GROUP				DVS-V6464B V2.10 STATION NUMBER 1			
GROUP	1	160	REMAIN				
001	.....			002	.....		
003	.....			004	.....		
005	.....			006	.....		
007	.....			008	.....		
009	.....			010	.....		
011	.....			012	.....		
013	.....			014	.....		
015	.....			016	.....		
=====							
001=OUT001	OUT001	002=OUT002	OUT002				
003=OUT003	OUT003	004=OUT004	OUT004				
005=OUT005	OUT005	006=OUT006	OUT006				
007=OUT007	OUT007	008=OUT008	OUT008				
009=OUT009	OUT009	010=OUT010	OUT010				
011=OUT011	OUT011	012=OUT012	OUT012				
013=OUT013	OUT013	014=OUT014	OUT014				
015=OUT015	OUT015	016=OUT016	OUT016				
F1:MOVE				F2:JUMP			
F3:SOURCE				B:Group L:Copy S:Send Ctrl-E:RETURN TO MENU			

Example of Setting Screen

### Notes

1. In the remote control unit, the transferred data are all displayed as input/output numbers.  
This is because data is transferred using input/output numbers instead of input/output names.
2. The group data of the primary and secondary stations' must be always the same.  
If the primary station data is changed after transfer, be sure to transfer the new data to the secondary station.

### Operating Function Keys

[F1] : MOVE

(To move the cursor up and down between the group setting screen and Description name list)

[F2] : JUMP (To move the cursor to the desired element number)

1. When [F2] is pressed, "Please Input ELEMENT NUMBER =" will be displayed.
2. Input the element number to be retrieved.
3. When [Enter] is pressed, the cursor will move to the desired number.

[F3] : SOURCE (DEST.)

When [F3] is pressed, the Description name list will be changed from destination to source.

[B] : GROUP

Press [B] to move the cursor to the group number on the group setting screen.

[L] : COPY (To copy all data in the Description name group to other groups)

1. When [L] is pressed, the message "Please Input Original Group Number =" will be displayed to ask for the group number to be copied.
2. Input the group number to be copied with the numerical keys and press [Enter]. The data of all group will be copied to the group setting screen currently displayed.

[S] : SEND (Transfers all data on the group setting screen currently displayed to a secondary station)

1. When [S] is pressed, a message "Please Input Station Number =" will be displayed to ask for the number of a secondary station to which the data is to be transferred.
2. Input the number of the secondary station using the numerical keys and press [Enter].  
All data on the group setting screen currently displayed will be transferred to the secondary station.

---

- **Transferring Data to the Secondary Station on the Monitor S-BUS**

To transfer the data on the group setting screen currently displayed to a secondary station on the monitor S-BUS, the number of the primary station on the monitor S-BUS must be specified, in addition to the secondary station number. Specify in the following way.

Please Input Station Number =  -

Station number of the primary station on monitor S-BUS      Station number of the secondary station on monitor S-BUS

- **Transferring Data to All Secondary Stations**

Press **[A]** instead of entering station numbers. The groupsetting data currently displayed will be transferred to all secondary stations including the monitor S-BUS.

**Note**

If a Description name is not in a secondary station, then, when in Description name mode, the source or destination name will be the corresponding Type + Num. name.

## O: SET TIE LINES

### Purpose

This menu is used to store the connection information of the matrix in the primary station and to set the tie line for switching several crosspoints using the remote control unit button.

Using this method, peripheral units such as the signal converters can be used more efficiently.

The tie line consists of four input/output connectors as one group and paths connected between sources and destinations. The tie line system consists of a maximum of 20 groups for sources and destinations respectively, and a maximum of 40 groups for connections, called Net groups.

### Setting Procedure

Before you perform the tie line management using two or three routing switchers, you should set the unit location and the elements of the tie line as follows.

1. Set the offset of each unit on the menu screen [A : SET UNIT LOCATION] of the secondary station in order to avoid repeated input/output numbers of multiple units and locate the units on one physical level.
2. Set the elements of the tie line on the menu screen [O : SET TIE LINE].

Select menu item [O].

The top half of the screen is for setting the source group while the bottom half is for setting the tie line path.

```

SET TIE LINES      DVS-V6464B V2.10 STATION NUMBER 1

SOURCE GROUPS
S001: ... (.....) S002: ... (.....) S003: ... (.....) S004: ... (.....)
      ... (.....)      ... (.....)      ... (.....)      ... (.....)
      ... (.....)      ... (.....)      ... (.....)      ... (.....)
S005: ... (.....) S006: ... (.....) S007: ... (.....) S008: ... (.....)
      ... (.....)      ... (.....)      ... (.....)      ... (.....)
      ... (.....)      ... (.....)      ... (.....)      ... (.....)

=====
P01:S  -N  -N  -D P02:S  -N  -N  -D
P03:S  -N  -N  -D P04:S  -N  -N  -D
P05:S  -N  -N  -D P06:S  -N  -N  -D
P07:S  -N  -N  -D P08:S  -N  -N  -D
P09:S  -N  -N  -D P10:S  -N  -N  -D
P11:S  -N  -N  -D P12:S  -N  -N  -D
P13:S  -N  -N  -D P14:S  -N  -N  -D
P15:S  -N  -N  -D P16:S  -N  -N  -D
P17:S  -N  -N  -D P18:S  -N  -N  -D
P19:S  -N  -N  -D P20:S  -N  -N  -D

[F1:MOVE] [F2:JUMP] [F3:PgUp] [F4:PgDn] [F5:GROUP] Ctrl-E:RETURN TO MENU
  
```

Example of Source Group Setting Screen

3. Select a source group number using the cursor and press **Enter**. The source number input mode will be set. Set the source name to the desired source group.

4. Input the source number using the numerical keys and press **Enter** to set it. If **Ctrl** - **F** is pressed before the setting, the original source name will be returned. When **Ctrl** - **P** is pressed, the source name will be deleted and "..." will be displayed.
5. After setting the source group, press **F5**. The top half of the screen will be switched to the destination group setting screen.

```

SET TIE LINES      DVS-V6464B V2.10 STATION NUMBER 1

SOURCE GROUPS
S001: 010 (OUT010 ) S002: ... (.....) S003: ... (.....) S004: ... (.....)
      011 (OUT011 )      ... (.....)      ... (.....)      ... (.....)
      012 (OUT012 )      ... (.....)      ... (.....)      ... (.....)
      013 (OUT013 )      ... (.....)      ... (.....)      ... (.....)
S005: ... (.....) S006: ... (.....) S007: ... (.....) S008: ... (.....)
      ... (.....)      ... (.....)      ... (.....)      ... (.....)
      ... (.....)      ... (.....)      ... (.....)      ... (.....)

=====
P01:S  -N  -N  -D P02:S  -N  -N  -D
P03:S  -N  -N  -D P04:S  -N  -N  -D
P05:S  -N  -N  -D P06:S  -N  -N  -D
P07:S  -N  -N  -D P08:S  -N  -N  -D
P09:S  -N  -N  -D P10:S  -N  -N  -D
P11:S  -N  -N  -D P12:S  -N  -N  -D
P13:S  -N  -N  -D P14:S  -N  -N  -D
P15:S  -N  -N  -D P16:S  -N  -N  -D
P17:S  -N  -N  -D P18:S  -N  -N  -D
P19:S  -N  -N  -D P20:S  -N  -N  -D

[F1:MOVE] [F2:JUMP] [F3:PgUp] [F4:PgDn] [F5:GROUP] Ctrl-E:RETURN TO MENU
  
```

Example of Destination Group Setting Screen

6. Set the destination group in the same way as for the source group.
7. After setting the destination group, press **F5** and set the net group setting screen.

```

SET TIE LINES      DVS-V6464B V2.10 STATION NUMBER 1

NET GROUPS
N001: LEVEL= 1 2 .....
      020 (OUT020 ) > 021 (IN021 ) 022 (OUT022 ) > 022 (IN022 )
      023 (OUT023 ) > 023 (IN023 ) 024 (OUT024 ) > 024 (IN024 )
N002: LEVEL= ..... 3 4 .....
      025 (OUT025 ) > 025 (IN025 ) 026 (OUT026 ) > 026 (IN026 )
      027 (OUT027 ) > 027 (IN027 ) 028 (OUT028 ) > 028 (IN028 )

LEVEL: 1=V/D 2=A1 3=A2 4=A 5=5 6=6 7=7 8=8

=====
P01:S  -N  -N  -D P02:S  -N  -N  -D
P03:S  -N  -N  -D P04:S  -N  -N  -D
P05:S  -N  -N  -D P06:S  -N  -N  -D
P07:S  -N  -N  -D P08:S  -N  -N  -D
P09:S  -N  -N  -D P10:S  -N  -N  -D
P11:S  -N  -N  -D P12:S  -N  -N  -D
P13:S  -N  -N  -D P14:S  -N  -N  -D
P15:S  -N  -N  -D P16:S  -N  -N  -D
P17:S  -N  -N  -D P18:S  -N  -N  -D
P19:S  -N  -N  -D P20:S  -N  -N  -D

[F1:MOVE] [F2:JUMP] [F3:PgUp] [F4:PgDn] [F5:GROUP] Ctrl-E:RETURN TO MENU
  
```

Example of Net Group Setting Screen



8. Select the number of net group with cursor keys and press **[Enter]** to set the input mode.  
Set the signal path between two routing switchers, using the combination of the "OUT of the front stage" > "IN of the latter stage".
9. Input the source number and the destination number with the numerical keys and press **[Enter]** to set it.  
When change the level, move the cursor to the level and press **[Enter]**.
10. Press **[F1]** to move the cursor to the tie line path setting screen.  
Set tie line paths using the combination of "Source group" – "Net group" – "Net group" – "Destination group".  
The two "Net groups" can be set at a maximum.  
However, leave one "Net group" blank when there are two routing switchers to be connected.
11. Move the cursor to a path number and press **[Enter]**.  
The source group input mode will be set.
12. Input the source group number and press **[Enter]**. The cursor will move to the net group. Input the net group and destination group in the same way as for the source group. Up to two net groups can be input for one path.
13. Use the above procedure to assign the source, destination and net numbers to each path number.

### Operating Function Keys

**[F1]** : MOVE

When **[F1]** is pressed, the cursor will move between upper and lower of the screen.

**[F2]** : JUMP (To move the cursor to the group number of the desired source)

1. When **[F2]** is pressed, "Please Input GROUP NUMBER =" will be displayed.
2. Input the group number of the source to be retrieved.
3. When **[Enter]** is pressed, the cursor will move to the desired number.

**[F3]** : Pg Up

When **[F3]** is pressed, the top half of the screen will display the 6 lines previous to the 6 lines displayed currently.

**[F4]** : Pg Dn

When **[F4]** is pressed, the top half of the screen will display the 6 lines next to the 6 lines displayed currently.

**[F5]** : GROUP

(To move the cursor to the top half of the screen and press **[F5]**. The display will change: "Source Gp" → "Destination Gp" → "Net Gp".)

**[F5]** : DISP

(To move the cursor to the bottom half of the screen and press **[F5]**. The display will change: "Path" → "Source Name" → "Destination Name".)

P : CHANGE PASSWORD

Purpose

This menu is used to change the password.

Setting Procedure

- 1. Select menu item [P].
- 2. Input the password currently set, and press **Enter**.  
In the default status, password is not set in DVS-V3232B/V6464B.  
Once the password is set, the menu items can not be set or changed unless the password is entered.  
If a wrong password is input, the demand for password input will be displayed again.
- 3. Enter a new password, and press **Enter**. The new password is verified again.
- 4. After the new password has been confirmed twice, the screen will return to the menu screen.
- 5. If not confirmed, the password is demanded again.

CHANGE PASSWORD

DVS-V6464B V2.10 STATION NUMBER 1

Please Input New Password = \_\_\_\_\_\*

Ctrl-E: RETURN TO MENU

Example of Setting Screen

Note

If you forget the password, settings cannot be performed unless the unit is returned to default.  
As all table data will be erased when returned to default, be sure you should not forget the password.

Q: CHANGE CROSSPOINT

Purpose

This menu is used to display the crosspoints and change them.

Setting Procedure

- 1. Select menu item [Q].
- 2. Select the item using the cursor. Change only the source name.
- 3. When **Enter** is pressed, the source name input mode will be set. When either key is pressed before entering the source name, the mode will be canceled and the previous display will be returned.
- 4. Select the code assigned to each type name, and enter the source name using the numerical keys.
- 5. When **Enter** is pressed, the crosspoint will be set. If **Ctrl - F** is pressed before the setting, the original setting will be returned.  
When **Ctrl - E** is pressed, the menu screen will be displayed.

Notes

- 1. When the power of the primary station is turned on, “...” will be displayed for a while at the source name position. But once the status of the crosspoints is detected, the source name set before hand will be displayed.
- 2. Outputs whose destination names are not assigned will be displayed with “...”, and crosspoint switching cannot be performed for these.
- 3. Moreover, names set with the protect function cannot be switched either.
- 4. When entering the Description name, enter 7 characters from the head.

CHANGE CROSSPOINT

DVS-V6464B V2.10 STATION NUMBER 1

LEVEL=1

DEST	SOURCE	DEST	SOURCE	DEST	SOURCE	DEST	SOURCE
OUT001 - IN001	OUT002 - IN002	OUT003 - IN003	OUT004 - IN004	OUT005 - IN005	OUT006 - IN006	OUT007 - IN007	OUT008 - IN008
OUT009 - IN009	OUT010 - IN010	OUT011 - IN011	OUT012 - IN012	OUT013 - IN013	OUT014 - IN014	OUT015 - IN015	OUT016 - IN016
OUT017 - IN017	OUT018 - IN018	OUT019 - IN019	OUT020 - IN020	OUT021 - IN021	OUT022 - IN022	OUT023 - IN023	OUT024 - IN024
OUT025 - IN025	OUT026 - IN026	OUT027 - IN027	OUT028 - IN028	OUT029 - IN029	OUT030 - IN030	OUT031 - IN031	OUT032 - IN032
OUT033 - IN033	OUT034 - IN034	OUT035 - IN035	OUT036 - IN036	OUT037 - IN037	OUT038 - IN038	OUT039 - IN039	OUT040 - IN040
OUT041 - IN041	OUT042 - IN042	OUT043 - IN043	OUT044 - IN044	OUT045 - IN045	OUT046 - IN046	OUT047 - IN047	OUT048 - IN048
OUT049 - IN049	OUT050 - IN050	OUT051 - IN051	OUT052 - IN052	OUT053 - IN053	OUT054 - IN054	OUT055 - IN055	OUT056 - IN056
OUT057 - IN057	OUT058 - IN058	OUT059 - IN059	OUT060 - IN060	OUT061 - IN061	OUT062 - IN062	OUT063 - IN063	OUT064 - IN064

0=IN 1=OUT 2=... 3=... 4=... 5=... 6=... 7=...  
8=... 9=... A=... B=... C=... D=... E=... F=GPHA

F1:SEARCH F2:JUMP F3:PgUp F4:PgDn F5:Level Ctrl-E: RETURN TO MENU

Example of Setting Screen

**Operating Function Keys****F1** : SEARCH (To select a destination name)

1. When **F1** is pressed, "Please Input DEST NAME =" will be displayed.
2. Input the destination name to be retrieved.  
In the Description name mode, input the Description name (within seven characters) from the head.
3. When **Enter** is pressed, the destination name entered will be searched.
4. If the desired name does not exist in the screen, press **F1** again.

**Note**

If there are several names whose typed characters are the same in the Description name mode, move the cursor to the first name displayed and press **Enter** to continue moving the cursor to the next name.

**F1** : SEARCH (To select a source name)

In the Description name mode, the setting procedure is as follows.

1. When **Enter** is pressed, the source input mode will be set.
2. Input the desired Description name (within seven characters) from the head.
3. Every time **F1** is pressed, the desired name will be searched.
4. When the desired name is displayed, press Return or Enter to set the crosspoint.

**F2** : JUMP (To move the cursor to the desired destination number)

1. When **F2** is pressed, "Please Input DEST NUMBER =" will be displayed.
2. Input the destination number to be retrieved.
3. When **Enter** is pressed, the cursor will move to the desired destination number.

**F3** : Pg Up

When **F3** is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4** : Pg Dn

When **F4** is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

**F5** : LEVEL

When **F5** is pressed, a level can be selected. Select the level number using the numerical key and press **Enter**. If **A** is pressed instead of the numerical key and press **Enter** here, the screen will display a list of all levels. The function keys **F1**, **F2**, and **F5** on the ALL screen have the same functions as those of the initial screen menu item [Q].

CHANGE CROSSPOINT				DVS-V6464B V2.10 STATION NUMBER 1							
				LEVEL=ALL							
				LEVEL:							
No.	out	1=VID	2=A1	3=A2	4=4	5=5	6=6	7=7	8=8		
001	OUT001	IN001	IN001	IN017	IN001	IN001	IN001	IN001	IN001	.....	.....
002	OUT002	IN002	IN002	IN018	IN002	IN002	IN002	IN002	IN002	.....	.....
003	OUT003	IN003	IN003	IN019	IN003	IN003	IN003	IN003	IN003	.....	.....
004	OUT004	IN004	IN004	IN020	IN004	.....	IN004	.....	IN004	.....	.....
005	OUT005	IN005	IN005	.....	IN005	IN005	IN005	IN005	IN005	.....	.....
006	OUT006	IN006	IN006	.....	IN006	IN006	IN006	IN006	IN006	.....	.....
007	OUT007	IN007	IN007	.....	IN007	IN007	IN007	IN007	IN007	.....	.....
008	OUT008	IN008	IN008	.....	IN008	IN008	IN008	IN008	IN008	.....	.....
009	OUT009	IN009	IN009	.....	IN009	.....	IN009	IN009	IN009	.....	.....
010	OUT010	IN010	IN010	.....	IN010	IN010	IN010	IN010	IN010	.....	.....
011	OUT011	IN011	IN011	.....	IN011	IN011	IN011	IN011	IN011	.....	.....
012	OUT012	IN012	IN012	.....	IN012	IN012	IN012	IN012	IN012	.....	.....
013	OUT013	IN013	IN013	.....	IN013	.....	IN013	.....	IN013	.....	.....
014	OUT014	IN014	IN014	.....	IN014	IN014	IN014	IN014	IN014	.....	.....
015	OUT015	IN015	IN015	IN015	IN015	IN015	IN015	IN015	IN015	.....	.....
016	OUT016	IN016	IN016	IN016	IN016	IN016	IN016	IN016	IN016	.....	.....
0=IN		1=OUT	2=...	3=...	4=...	5=...	6=...	7=...			
8=...		9=...	A=...	B=...	C=...	D=...	E=...	F=GPHA			
F1:SEARCH				F2:JUMP				F5:Level			
Ctrl-E:RETURN TO MENU											

Example of Setting Screen

**R : CALL SECONDARY STATION****Purpose**

This menu is used to call the menu of the secondary station connected to the S-BUS of the primary station.

**Operating Procedure**

1. Select the menu item [R] at the menu screen.  
A message will be displayed on the screen.
2. Enter the station number of the secondary station, and press **Enter**. The display will be changed to the menu screen of the secondary station.
3. If **Ctrl** - **D** is pressed, the screen will return to the menu screen of the primary station.

**Notes**

1. If the specified secondary station does not exist on the S-BUS data link, the following message will be displayed.  
Display: "Station dose not exist"
2. If the specified secondary station is not available for communication, the following message will be displayed.  
Check at the menu item [F : SET ACTIVE UNIT NUMBER].  
Display: "Disable Station"

CALL STATION NUMBER ?

Ctrl-E: RETURN TO MENU

**Setting Screen****S : SELECT INDICATION COLOR****(Except for BKPF-R70 and HDS-V3232)****Purpose**

If this menu is set to "ON", the screen will show a color display during the use of the Sony control terminal BAC-1200.

**Setting Procedure**

1. Select menu item [S].
2. When **S**, **Enter** is pressed, the setting condition displayed will be switched ("ON" → "OFF" → "ON" ...).

**Note**

As wrong characters will be displayed before and after the menu items when a control terminal except Sony control terminal BAC-1200 is used, be sure to set to "OFF".

**T : SET CLOCK****Purpose**

This menu is used for the setting of the time. The time set at this menu will be used for recording the time of error occurrence.

**Setting Procedure**

1. Select menu item [T].
2. Enter the time using the numerical keys, and press **Enter** to set it.  
The screen will be changed to the menu screen automatically.

**Note**

If **Ctrl** - **E** is pressed without pressing **Enter**, the screen will return to the menu screen and the setting modification becomes invalid.

1993.02.03-22:24 (Y.M.D-H:M) READ TIME  
CHANGE TO = 1993.02.03-22:24

Ctrl-E: RETURN TO MENU

**Example of Setting Screen**

## U: SELECT REMOTE

### Purpose

This menu is used to control the routing switcher using the 9-pin remote (REMOTE 2), and to set the control mode to the DIRECT mode or the S-BUS conversion mode.

### Setting Procedure

1. Select menu item [U].
2. Select channel using the cursor keys.
3. Press **Enter**, and the setting condition displayed will be changed.

DIRECT → CONVERT RS422 (CART +) to S-BUS

SELECT CONTROL MODE		DVS-V6464B V2.10 STATION NUMBER 1
CHANNEL A	---	REMOTE FUNCTION = CONVERT RS422 (CART+) to S-BUS
CHANNEL B	---	REMOTE FUNCTION = DIRECT
Ctrl-E: RETURN TO MENU		

Example of Setting Screen

### DIRECT:

In this mode commands received using RS-422A are not converted to those for the S-BUS (REMOTE 1) and are directly used for controlling the receiving station. If this mode is selected, a protocol must be selected at the secondary station.

### CONVERT RS-422 (CART +) to S-BUS

This mode converts commands received using the RS-422A to those for the S-BUS.

### Note

How to use UA2 Code:

The original use of the UA2 code in the RS-422A protocol is to identify the multiple equipments which are connected by loop-through connection, and be controlled.

Each equipment is controlled by the control command with UA2 code which corresponds to the unit address of each equipment.

The UA2 code is converted to the level control command when the RS-422A commands are converted to the S-BUS levels.

The following examples show how UA2 codes are converted to the S-BUS level.

UA2 = 01 → 00000001 → S-BUS level 1  
 UA2 = 02 → 00000010 → S-BUS level 2  
 UA2 = 04 → 00000100 → S-BUS level 3  
 UA2 = 08 → 00001000 → S-BUS level 4  
 UA2 = 10 → 00010000 → S-BUS level 5  
 UA2 = 20 → 00100000 → S-BUS level 6  
 UA2 = 40 → 01000000 → S-BUS level 7  
 UA2 = 80 → 10000000 → S-BUS level 8  
 UA2 = FF → 11111111 → S-BUS All level

The following combinations of levels are also possible.

UA2 = 03 → 00000011 → S-BUS level 1 and 2  
 UA2 = 07 → 00000111 → S-BUS level 1, 2 and 3

### Note

The S-BUS conversion mode can be used only when the primary station is controlled by the 9-pin remote control. Therefore, use the DIRECT mode whenever a secondary station is controlled by the 9-pin remote control.

---

## V : SELECT WARNING DISPLAY

### Purpose

This menu is used to set the warning message displayed on the system status screen.

### Note

Some messages will not be displayed, depending on the models.

### Setting Procedure

1. Select menu item [V].
2. Press [V], [Enter], and the setting conditions displayed will be switched. ("ON" → "OFF").

"OFF" : Displays important messages only

<Reference>

"X-POINT ERROR IN STATION \* \*"

"X-POINT RECOVERED IN STATION \* \*"

"TEMPERATURE RISE IN STATION \* \*"

"TEMPERATURE RECOVERED IN STATION \* \*"

"FAN STOP IN STATION \* \*"

"FAN RECOVERED IN STATION \* \*"

"S-BUS LINK DISCONNECTED TO CHANNEL"

"S-BUS LINK CONNECTED TO CHANNEL"

"ON" : Displays all messages

Displays the following in addition to the above

<Reference>

"BACKUP POWER SUPPLY DOWN IN STATION \* \*"

"BACKUP POWER SUPPLY RECOVERED IN STATION \* \*"

"MISSING REFERENCE SIGNAL IN STATION \* \*"

"REFERENCE SIGNAL CORRECTLY FED TO STATION \* \*"

"VALID INPUT OR OUTPUT BOARD IN STATION \* \*"

"INVALID INPUT OR OUTPUT BOARD IN STATION \* \*"

"BACKUP CPU DOWN IN STATION \* \*"

"BACKUP CPU RECOVERED IN STATION \* \*"

"STATION \* \* FAILURE (DISCONNECTED OR POWER DOWN)"

"STARTED BY DVS-V6464B Ver1.00 IN STATION \* \*"

"DIFFERENT CHECK SUM=35DB IN STATION \* \*"

## W: SYSTEM STATUS LOG

### Purpose

This menu is used to check the error during self-diagnosis of each station, the status of the S-BUS circuit, and the time of events.

```

SYSTEM STATUS LOG                      DVS-V6464B V2.10 STATION NUMBER 1

1990.10.12-15:42 S-BUS LINK DISCONNECTED
1990.10.27-09:28 STARTED BY BKS-R1601 Ver3.10 IN STATION 11
1990.11.03-05:31 STARTED BY BKS-R3204 Ver3.11 IN STATION 32
1991.01.14-13:51 MISSING REFERENCE SIGNAL IN STATION 1
1991.02.01-11:15 POWER SUPPLY UNIT B DOWN IN STATION 4
1991.02.04-06:11 X-POINT ERROR IN STATION 1
-- end --

Ctrl-E: RETURN TO MENU

```

Example of Display

### Operation Procedure

1. Select menu item [W].
2. When all status cannot be displayed on the screen, " -- more -- " will be displayed at the bottom of the screen. Press **[SPACE]** key to display the next status. When all status have been displayed, " -- end -- " will be displayed.
3. Press **[Ctrl] - [E]** to return to the menu screen.

### System Status Screen

Refer to "6. Confirmation of Function" for detail of the system status screen.

#### Note

- To erase the LOG contents in DVS-V3232B/V6464B, set the S3 switch on the CPU-149 board to "C" (Clear) and then press the S5 switch (Reset). After erasing, be sure to return the S3 switch to "0" and press the S5 switch (Reset) again.
- To erase the LOG contents in HDS-V3232, set the S2 switch on the CPU-251 board to "C" (Clear) and then press the S8 switch (Reset). After erasing, be sure to return the S2 switch to "0" and press the S8 switch (Reset) again.

## X: DISPLAY S-BUS COMMUNICATION

### Purpose

This menu is used to display the S-BUS data received at the primary station.

### Setting Procedure

1. Select menu item [X].
2. To stop the scroll, press **[Ctrl] - [E]**. ("TRACE OFF" will be displayed at the bottom of the screen.)
3. The menu screen will be returned when **[Ctrl] - [E]** is pressed again.

```

S-BUS COMMUNICATION  TRACE ON

STATION No.011 01 01 0B 03 0E 00 08
STATION No.015 01 09 0F 03 0E 00 08
STATION No.011 01 01 0A FF 01 00 01
STATION No.011 01 01 0F FF 01 00 01
TRACE OFF

Ctrl-E: RETURN TO MENU

```

Example of Display

#### Note

For details on the contents of the display, refer to the S-BUS Protocol Manual.

### Y : DISPLAY TABLE (Except for HDS-V3232)

## Purpose

This menu is used to display the table data set with the control terminal.

## Operation Procedure

1. Select menu item [Y]. The following message will be displayed at the bottom of the screen.

Display : "DISPLAY TABLE DATA? (y/a/n)"

2. Press **E**, and the signal format (4: 2: 2/4 fsc) set for each input/output will be displayed in hexadecimal. (DVS-V\* \* \* \* series only.)

Press **A**, and all table data will be displayed in hexadecimal.

When **[N]** is pressed, the table data display will be canceled.

3. If **[SPACE]** is pressed during the display, the display will be interrupted. When **[SPACE]** is pressed once again, the display will begin.
4. Press **[Ctrl] – [E]** to stop the display. The menu screen will be displayed.

```

DISPLAY TABLE DATA                                DVS-V6464B V2.10 STATION NUMBER 1

0000:49 4E 00 00 00 00 00 00 4F 55 54 00 00 00 00 00 : IN.....OUT.....
0010:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0020:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0030:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0040:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0050:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0060:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0070:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
0080:56 49 44 00 00 00 00 00 41 31 00 00 00 00 00 : VID.....A1.....
0090:41 32 00 00 00 00 00 00 34 00 00 00 00 00 00 : A2.....4.....
00A0:35 00 00 00 00 00 00 00 36 00 00 00 00 00 00 : 5.....6.....
00B0:37 00 00 00 00 00 00 00 38 00 00 00 00 00 00 : 7.....8.....
00C0:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
00D0:00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 : .....
00E0:00 00 00 00 00 00 00 00 02 FF FF 10 00 00 02 : .....

```

### Example of Display

### Note

For the contents of the table data, refer to the S-BUS Protocol Manual.

**Z : SET UNIT DETECTABLE**

## Purpose

This menu is used to check the possibility of communication of secondary stations connected to the S-BUS data link periodically.

During checking, “?” appears. After the completion of checking, the code number indicating the type of each device appears.

If the secondary station does not communicate for a given period, the message below appears.

"STATION \*\*\* FAILURE (DISCONNECT OR POWER DOWN)"  
 Station number

### Setting Procedure

1. Select the menu item [Z].
2. Select a secondary station you want to check using the cursor.
3. Press **[Enter]**, and “?” appears.  
To cancel “?”, press **[Enter]** again.
4. Press **[Ctrl] – [E]**, and the display is changed to the menu screen to begin checking.
5. After about ten seconds, select the menu item [Z]. If the secondary station is available for communication, “?” changes to a device code number.

### Note

A secondary station to be checked should be set available for communication in advance at menu item [F : SET ACTIVE UNIT NUMBER]

```

SET UNIT DETECTABLE                                DVS-V6464B V2.10 STATION NUMBER 1

      1  2  3  4  5      6  7  8  9 10      11 12 13 14 15      16 17 18 19 20
      +
001-020  M  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?
021-040  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?
041-060  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?
061-080  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?  ?
081-100
101-120
121-140
141-160
161-180
181-200
201-220
221-240
241-254

                                     *   *   *   *   *

01: DVS-V1616      02: DVS-V3232      03: DVS-A3232      04: BKS-R1601      05: BKS-R3202
06: BKS-R3203      07: BKS-R3281      08: DVS-V6464      09: BKS-R5000      10: DVS-RS1616
11: DVS-TC3232     12: BKDM-5080      13: BKS-R3204      14: BKS-R3205      15: BKS-R3206
16: BKS-R3280      17: BZR-1000      18: DVS-V3232B     19: DVS-V6464B

                                Ctrl-E: RETURN TO MENU

```

### Example of Setting Screen



## 5-2. Setting Items of the Secondary Station

### A:SET UNIT LOCATION

#### Purpose

This menu is used to set the input/output location of the routing switcher.

#### Setting Procedure

1. Select menu item [A].
  2. Use the cursor keys (←, →) to select the setting item.
  3. When [Enter] is pressed, the offset value of the input number and the output number can be typed.
  4. Enter the offset value using the numerical keys.
  5. Press [Enter] to set the offset value.  
If [Ctrl] - [F] is pressed before the setting, the original offset value will be returned.
- The location is assigned consecutive numbers from the offset value. The following table lists the input and output control area assigned from the head number consecutively.

Model	Input Control area	Output Control area	Setting area	Equivalent Unit
DVS-V6464B	64	64	1 to 512	
DVS-V3232B HDS-V3232	32	32	1 to 512	
BVS-A3232	256	32	1 to 256	DVS-TC3232 BVS-V3232 BVS-A3232
DVS-V1616	16	16	1 to 512	
DVS-RS1616	128	16	1 to 128	

6. The menu screen of the secondary station will be displayed when [Ctrl] - [E] is pressed.

SET UNIT LOCATION
DVS-V6464B V2.10 STATION NUMBER 1

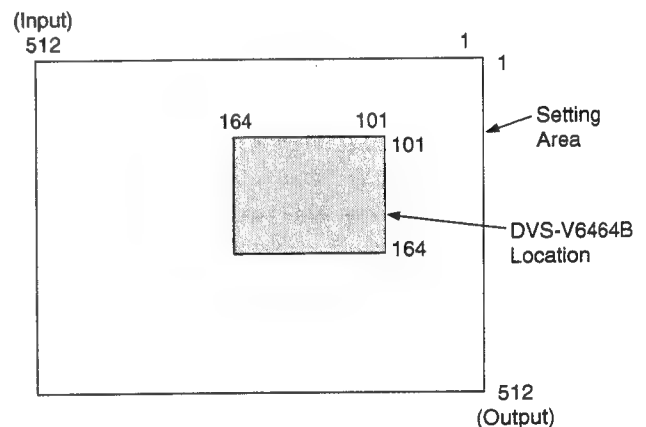
SOURCE No 0001-0064
DESTINATION No 0001-0064
LEVEL No 1

Ctrl-E: RETURN TO MENU

Example of Setting Screen

#### Notes

1. In the initial status (factory setting), the head number is set to "1".
2. When DVS-V3232B/V6464B, BKPF-R70 or HDS-V3232 is used as the primary station, input/output number can be set freely using the menu item [L : SET PHYSICAL ASSIGNMENT].  
The setting values in this menu are physical input/output/level numbers.  
When selecting crosspoints from the remote control unit, the virtual input/output/level numbers set at the menu item [L] are used. In the initial status of [L], the physical numbers equal the virtual numbers.



---

## G:UPDATE BACKUP CONTROLLER

### Purpose

This menu is used to copy the table data stored in the main CPU board of the secondary station to the backup CPU board.

This setting is valid only when the optional CPU board is installed to the secondary station.

### Setting Procedure

1. Select menu item [G]. The message "This process requires about 1 minutes. Execute? (y/n)" will be displayed at the bottom of the screen.
2. Table data copying is performed when **[Y]** is pressed. To cancel copying, press **[N]**.
3. In some software, when copying has been completed, "PROGRAM TABLE ok? (y/n)" may be displayed at the same position. In this case, press **[Y]**.

### Notes

1. The ROM version of the main CPU board and that of the backup CPU board must be the same. If different versions are used, the unit may hang up due to copying. Remove the backup CPU board when this occurs. The above occurs because a new table data can not be run on the old version software.
2. It takes about 1 minutes to copy the table data.
3. The table data of transcode from RS-422A to S-BUS (set at menu item [U] of a secondary station) is not copied to the backup CPU board.
4. When you copy the data of main CPU to backup CPU on the menu screen [G : UPDATE BACKUP CONTROLLER] of the primary station or a secondary station, you can abort the operation by pressing **[Ctrl] - [D]**.  
However you should copy again for the data of the backup CPU is not correct if aborted. Even if you do not copy again, the data will be renewed in one hour approximately by the auto backup function.



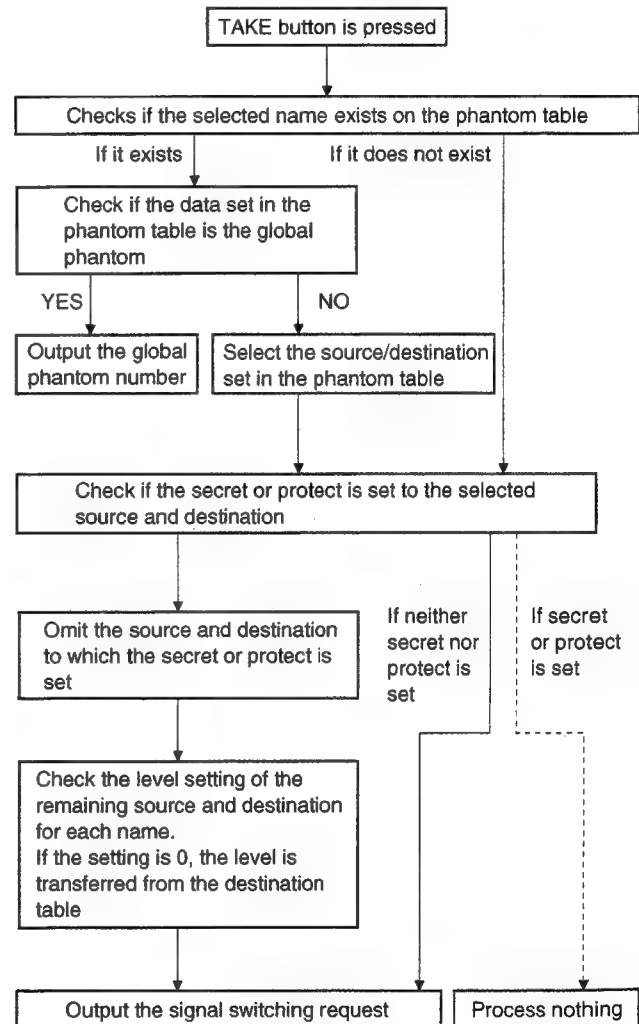
5. When **[Enter]** is pressed, the phantom table will be set.
6. When **[Ctrl] – [E]** is pressed, the menu screen of the secondary station will be displayed. When **[Ctrl] – [D]** is pressed, the menu screen of the primary station will be displayed.

#### • Execution of Phantom Function

When the phantom function is performed by a remote control unit, its operation conforms to this phantom table. It is possible to switch with the specified level or to set ON (1) or OFF (0) for each level. When level "0" is set or when "0" is set for all levels, the level value will that set for the destination name specified in the phantom table. The indication (specified on the menu item [E : SET LEVEL TABLE] of the primary station) is as follows : [Phantom name : Output terminal name < input terminal name – level setting].

#### Internal Process After TAKE Button Pressing :

When pressing the TAKE button after selecting a source/phantom the following internal process is made. In BKS-R1607/R1608/R3209/R3210, TAKE is processed immediately by pressing the source selection button.



## K: RESET TO DEFAULT TABLE

### K: DEFAULT TABLE

#### Purpose

This menu is used to initialize the table data. Do not perform this menu when modifying the table data.

#### Setting Procedure

1. Select menu item [K]. The message "RESET TO DEFAULT TABLE ok ? (y/n)" will be displayed at the bottom of the screen.
2. Press **[Y]** to process the initialization. To cancel initializing, press **[N]**.

#### Note

The table data will be lost note when performing the menu item [K].

## L: COPY TABLE DATA

#### Purpose

This menu is used to copy the table data of the specified remote control unit. This applies to the remote control unit as follow.

- Version 3.00 or later : BKS-R1601/R3202/R3203/R3204/R3205/R3206
- Version 1.00 or later : BKS-R1607/R1608/R3209/R3210

#### Setting Procedure

1. Select menu item [L]. This item can be selected from both the menu and another setting screen.
2. As the message "Station Number?" will be displayed on the screen, input the station number of the unit to be copied. Select the table name to be copied, from A, P, B and D, using the alphabet keys.
3. When **[Enter]** is pressed, the table data will be copied, and the screen will return to the setting screen.
4. When **[Ctrl] - [E]** is pressed again, the screen will return to the menu screen of the secondary station. When **[Ctrl] - [D]** is pressed, the screen will return to the menu screen of the primary station.

SONY ROUTING SYSTEM SETUP MENU	BKS-R3202 V3.10 STATION NUMBER 6
<p>A:Copy All table  P:Copy PHANTOM table  B:Copy PANEL table  D:Copy Available Destination table  Input A, P, B, D, 0-9 Selected = A  Station Number ?</p>	
Ctrl-E:MENU Ctrl-D:RETURN	

Example of Setting Screen

- Selected = A All the table data are copied.  
Selected = P Data set at the menu item [H : SET PHANTOM TABLE] are copied.  
Selected = B Data set at the menu item [N : SET PANEL TABLE] are copied.  
Selected = D Data set at the menu item [O : SET AVAILABLE DESTINATION] are copied.

#### Note

The copy function of BKS-R\* \* \* \* guarantees upper compatibility only.

The remote control unit except for BKS-R1607/R1608/R3209/R3210 may lost a part of the data, when coping the data from Ver. 3.\* \* unit to Ver. 1.\* \* unit, a part of the data may be lost (global phantom, etc.).

The function is effective when copying the data from Ver. 1.\* \* unit to Ver. 3.\* \* unit in a system.

M: SET MONITOR FUNCTION  
(Except for HDS-V3232)

Purpose

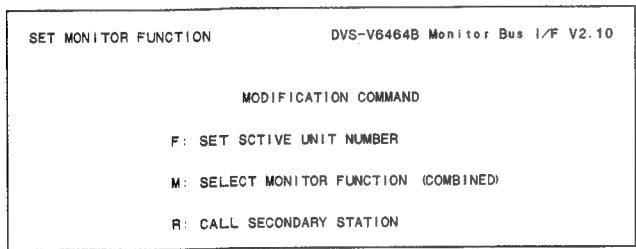
This menu is used to set the monitor S-BUS. As this monitor function is controlled by the local CPU, it has a monitor data link that is independent from the standard S-BUS data link.

Therefore, it is necessary to set the primary station and secondary stations for the monitor S-BUS.

Setting Procedure  
(For the Primary Station on the Monitor S-BUS)

- 1. Select menu item [M].
- 2. The menu screen of the primary station on the monitor S-BUS will be displayed.

For details of setting this menu, refer to “5-3. Setting Items of the Primary Station on Monitor S-BUS”.



Example of Setting Screen

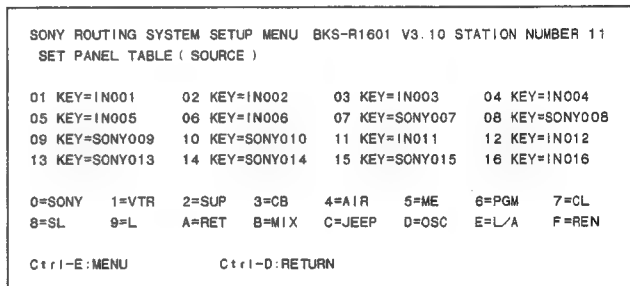
N: SET PANEL TABLE (BKS-R1601/R3202/R3203)

Purpose

This menu is used to assign source name to each source selection button.

Setting Procedure

- 1. Select menu item [N].
- 2. Select a button number using the cursor.
- 3. When **Enter** is pressed, the source name can be typed. If **Enter** is pressed before inputting the source name, the registration will be deleted.
- 4. Select the code assigned to each type name, and use the numerical keys to enter the source name.
- 5. Press **Enter** to set the source name.
- 6. Press **Ctrl** – **E** to return to the menu screen of the secondary station.  
Press **Ctrl** – **D** to return to the menu screen of the primary station.



Example of Setting Screen

**N: SET PANEL TABLE (BKS-R1607/R1608/R3204/R3205/R3209/R3210/R1617/R1618/R3219/R3220/R1621)****Purpose**

This menu is used to assign source/destination name to each source/destination button.

**Setting Procedure**

1. Select menu item [N].
2. Select a button number using the cursor.
3. When **[Enter]** is pressed, the panel table can be typed.  
To delete the registration, press **[Enter]** before inputting the name.
4. a) When [J : NAME STYLE (Type + Num)] is selected in the primary station menu, input the type name (between 0 and F) and the number for the source and destination name.  
b) Each time Ctrl N is pressed when [J : NAME STYLE (DESCRIP. NAME)] is selected in the primary station menu, the following input mode will be switched alternately.

Description name input mode :

When "Ctrl- N : Type + Num" is displayed on the screen, it means that the name mode will be changed to "Type + Number" by pressing **[Ctrl] - [N]**.

Input Description name from the first to seventh characters using the alphabet and numerical keys.

"Type + Number" name input mode:

Input in the same way as a).

**Note**

If the Description name has been set for the input/output number, the display of Description has priority to the display of "Type + Number" even if the "Type + Number" name is set.

5. When **[Enter]** is pressed, the source name is set.
6. When **[Ctrl] - [E]** is pressed, the menu screen of the secondary station will be displayed.  
When **[Ctrl] - [D]** is pressed, the menu screen of the primary station will be displayed.

SONY ROUTING SYSTEM SETUP MENU				BKS-R3219 V1.00	STATION NUMBER 3
SET PANEL TABLE (SOURCE)		CONTROL DESTINATION =		OUT001	
01 KEY=IN001	02 KEY=IN002	03 KEY=IN003	04 KEY=IN004		
05 KEY=IN005	06 KEY=IN006	07 KEY=IN007	08 KEY=IN008		
09 KEY=.....	10 KEY=.....	11 KEY=.....	12 KEY=.....		
13 KEY=.....	14 KEY=.....	15 KEY=.....	16 KEY=.....		
17 KEY=IN009	18 KEY=IN010	19 KEY=IN011	20 KEY=IN012		
21 KEY=IN013	22 KEY=IN014	23 KEY=IN015	24 KEY=IN016		
25 KEY=.....	26 KEY=.....	27 KEY=.....	28 KEY=.....		
29 KEY=.....	30 KEY=.....	31 KEY=.....	32 KEY=.....		
SET PANEL TABLE (DESTINATION)					
01 KEY=.....	02 KEY=.....	03 KEY=.....	04 KEY=.....		
05 KEY=.....	06 KEY=.....	07 KEY=.....	08 KEY=.....		
09 KEY=OUT001	10 KEY=OUT002	11 KEY=OUT003	12 KEY=OUT004		
13 KEY=OUT005	14 KEY=OUT006	15 KEY=OUT007	16 KEY=OUT008		
17 KEY=.....	18 KEY=.....	19 KEY=.....	20 KEY=.....		
21 KEY=.....	22 KEY=.....	23 KEY=.....	24 KEY=.....		
25 KEY=OUT009	26 KEY=OUT010	27 KEY=OUT011	28 KEY=OUT012		
29 KEY=OUT013	30 KEY=OUT014	31 KEY=OUT015	32 KEY=OUT016		
0=IN	1=OUT	2=SONY	3=VTR	4=SUP	5=CB
6=AIR	7=ME				
8=PGM	9=CL	A=SL	B=L	C=RET	D=MIX
E=JEEP	F=QSC				
G=L/A	H=REM	I=CAM	J=STDO	K=AUX	L=COV
M=BS	N=CS				
O=SAT	P=CG	Q=WETH	R=TEST	S=HD	T=D1-
U=D2-	V=SEG				
Ctrl-E:MENU Ctrl-D:RETURN Ctrl-N:DESCRIP.NAME T:TAKE M:MONI V:VTR E:LEVEL					

Example of Setting Screen

**Notes**

1. In the BKS-R1617/R1621, each button (key) can be set to both source and destination. In case source and destination are set to the same button (key), the DEST button works as a destination button when the DEST button lights in amber and the DEST button works as a source button when the DEST button lights in green. In the 4 DESTINATION mode, both source and destination can be set to only buttons (keys) 01 to 04. Other than setting of source button (key), the destinations of block 1 to 4 can be set to destination buttons 01 to 04.  
Be sure to set either source or destination on the respective buttons (keys) when setting other model. If both source and destination are set to the same button (key), it will cause malfunction.
2. Set the table data of BKS-R3204/R3205/R3206 by eight buttons previously in the menu item [Z : SET ----- PANEL STATUS]. If "KEY = ----" is displayed on the key number position, the name can not be input.
3. When setting description names to the source/destination buttons, select a name from the description name group sent to the remote control unit.  
If other names are input, these will not be set even if the **[Enter]** button is pressed.  
In such cases, transfer the group including the desired description name from the primary station.

4. When "T : TAKE M : MONI" is displayed on the screen, it means that the button on the source side can be set as the TAKE button or MONI button.  
Before pressing **[Enter]**, select a key from the source side. To set it as the TAKE button, press **[T]**; to set it as the MONITOR button, press **[M]**.
5. When "V : VTR" is displayed on the screen, it means that the VTR control function can be assigned to the buttons on the source side.  
Before pressing **[Enter]**, select a key from the source side and press **[V]**.  
Enter the number according to the list of operations on the bottom of the screen.
6. When "E : LEVEL" is displayed on the screen, it means that the level control function can be assigned to the buttons on the source side.  
Before pressing **[Enter]**, select a key from the source side and press **[E]**.  
Enter the number according to the list of levels on the bottom of the screen.

**Note**

In BKS-R1607 of version V1.10 and higher, any desired button among the sixteen buttons can be set as a TAKE button.

When this setting is performed, the name selected by the SELECTOR knob on the front panel can be taken by pressing the TAKE button.

(Maximum inputs 512 × outputs 512)

The actual setting procedure is as follows. Select a key from the source side which you want to use as the TAKE button. Press the **[T]** button.

SONY ROUTING SYSTEM SETUP MENU				BKS-R1607 V1.10		STATION NUMBER 12	
SET PANEL TABLE (SOURCE)				CONTROL DESTINATION = OUT244			
01 KEY=SRC004	02 KEY=SRC005	03 KEY=SRC006	04 KEY=SRC001				
05 KEY=SRC002	06 KEY=SRC003	07 KEY=SRC007	08 KEY=SRC008				
09 KEY=SRC009	10 KEY=SRC010	11 KEY=SRC013	12 KEY=SRC014				
13 KEY=.....	14 KEY=.....	15 KEY=.....	16 KEY=TAKE				
SET PANEL TABLE (DESTINATION)							
01 KEY=.....	02 KEY=.....	03 KEY=.....	04 KEY=.....				
05 KEY=.....	06 KEY=.....	07 KEY=.....	08 KEY=.....				
09 KEY=.....	10 KEY=.....	11 KEY=.....	12 KEY=.....				
13 KEY=OUT001	14 KEY=OUT012	15 KEY=OUT003	16 KEY=.....				
0=SRC	1=OUT	2=2	3=3	4=4	5=5	6=6	7=7
8=8	9=9	A=A	B=B	C=C	D=D	E=E	F=F
Ctrl-E:MENU Ctrl-D:RETURN Ctrl-N:DESCRIP. NAME T:TAKE							

Example of Setting Screen

**N : SET PANEL TABLE (BKS-R3206/R3216)****Purpose**

This menu is used to assign source name and destination name to be displayed.

**Setting Procedure**

The setting procedure is the same as that of menu item [N : SET PANEL TABLE] (BKS-R3204).

**Notes**

1. The setting of [SET PANEL TABLE (SOURCE)] assigns the source name and [SELECT DESTINATION] assigns the destination name.
2. The destination name can also be assigned using the button on the front panel. Refer to the Operation Manual for setting.
3. If "Type + number" name mode is selected in the menu item [Z : SET PANEL STATUS], (refer to the Operation Manual of BKS-R3206) "SET PANEL TABLE (SOURCE)" is not displayed.

SONY ROUTING SYSTEM SETUP MENU				BKS-R3206 V3.10 STATION NUMBER 18			
SET PANEL TABLE ( SOURCE )							
01 KEY=IN001	02 KEY=IN002	03 KEY=IN003	04 KEY=IN004				
05 KEY=IN005	06 KEY=IN006	07 KEY=SONY007	08 KEY=SONY008				
09 KEY=SONY009	10 KEY=SONY010	11 KEY=IN011	12 KEY=IN012				
13 KEY=SONY013	14 KEY=SONY014	15 KEY=SONY015	16 KEY=IN016				
SELECT DESTINATION							
01	OUT001	02	OUT002	03	OUT003	04	OUT004
05	OUT005	06	OUT006	07	OUT007	08	OUT008
09	OUT009	10	OUT010	11	OUT011	12	OUT012
13	OUT013	14	OUT014	15	OUT015	16	OUT016
0=IN	1=OUT	2=SONY	3=VTR	4=SLP	5=CB	6=AIR	7=ME
8=PGM	9=CL	A=SL	B=L	C=RET	D=MIX	E=JEEP	F=OSC
G=L/A	H=REM	I=CAM	J=STDO	K=AUX	L=COV	M=BS	N=CS
O=SAT	P=CG	Q=WETH	R=TEST	S=HD	T=D1-	U=D2-	V=SEG
Ctrl-E: MENU		Ctrl-D: RETURN		Ctrl-N: DESCRIP. NAME			

Example of Setting Screen



## O: SET AVAILABLE DESTINATION (BKS-R3202/R3206)

### Purpose

This menu is used to set the destination which can be selected by the remote control unit.

### Setting Procedure

1. Call the menu screen of the remote control unit to be set using menu item [R], and then select menu item [O].
2. Select the destination using the cursor.  
Press  $\uparrow$  and  $\downarrow$  when the cursor is placed at the top or bottom, and the next destination number will appear. The destination numbers are 001 to 512.
3. When press  $\text{Enter}$ , the status of the destination indicated by cursor will be changed.

### Notes

- The destination name indicated on this screen can be selected from the remote control unit.
- The destination indicated as “...” is not registered on the destination table.
- The blank destination can not be selected from the remote control unit.

4. Press  $\text{Ctrl} - \text{E}$  to display the menu screen of the secondary station.  
Press  $\text{Ctrl} - \text{D}$  to display the menu screen of the primary station.

SONY ROUTING SYSTEM SETUP MENU BKS-R3202 V3.10 STATION NUMBER 7			
SELECT DESTINATION NAME			
001=OUT001	002=OUT002	003=OUT003	004=OUT004
005=OUT005	006=OUT006	007=OUT007	008=OUT008
009=OUT009	010=OUT010	011=OUT011	012=OUT012
013=OUT013	014=OUT014	015=OUT015	016=OUT016
017=OUT017	018=OUT018	019=OUT019	020=OUT020
021=OUT021	022=OUT022	023=OUT023	024=OUT024
025=OUT025	026=OUT026	027=OUT027	028=OUT028
029=OUT029	030=OUT030	031=OUT031	032=OUT032
033=OUT033	034=OUT034	035=OUT035	036=OUT036
037=OUT037	038=OUT038	039=OUT039	040=OUT040
041=OUT041	042=OUT042	043=OUT043	044=OUT044
045=OUT045	046=OUT046	047=OUT047	048=
049=	050=OUT050	051=OUT051	052=OUT052
053=OUT053	054=OUT054	055=OUT055	056=OUT056
057=	058=	059=	060=
061=OUT061	062=OUT062	063=OUT063	064=OUT064

$\text{Ctrl-E}$ : MENU    $\text{Ctrl-D}$ : RETURN

Example of Setting Screen

## O: SET AVAILABLE DESTINATION (BKS-R1607/R3210/R3216/R1617/R1618/R3219/ R3220/R1621)

### Purpose

This menu sets the range of selectable destinations and the range of selectable sources corresponding to the range of selectable destinations.

### Setting procedure

1. Invoke the menu display of the remote control unit to set the menu item [R]. Then select the menu item [O].
2. Select a destination to be set using the cursor key.  
When the key  $\uparrow$ ,  $\downarrow$  is pressed while the cursor key is located either top end or bottom end of display, the display moves to that of the next terminal number. The output terminal numbers are from 001 to 512.
3. Pressing  $\text{Enter}$  toggles between selection and non-selection of destination shown by cursor.

### Notes

- The destinations whose names are displayed, can be selected from this remote control.
- The indication “...” means that the name is not registered yet on the destination table.
- The blank destination cannot be selected from the panel.

SONY ROUTING SYSTEM SETUP MENU BKS-R3216 V1.00 STATION NUMBER 4			
SELECT DESTINATION NAME			
0001=OUT001	0002=OUT002	0003=OUT003	0004=OUT004
0005=OUT005	0006=OUT006	0007=OUT007	0008=OUT008
0009=OUT009	0010=OUT010	0011=OUT011	0012=OUT012
0013=OUT013	0014=OUT014	0015=OUT015	0016=OUT016
0017=OUT017	0018=OUT018	0019=OUT019	0020=OUT020
0021=OUT021	0022=OUT022	0023=OUT023	0024=OUT024
0025=OUT025	0026=OUT026	0027=OUT027	0028=OUT028
0029=OUT029	0030=OUT030	0031=OUT031	0032=OUT032
0033=OUT033	0034=OUT034	0035=OUT035	0036=OUT036
0037=OUT037	0038=OUT038	0039=OUT039	0040=OUT040
0041=OUT041	0042=OUT042	0043=OUT043	0044=OUT044
0045=OUT045	0046=OUT046	0047=OUT047	0048=OUT048
0049=OUT049	0050=OUT050	0051=OUT051	0052=OUT052
0053=OUT053	0054=OUT054	0055=OUT055	0056=OUT056
0057=OUT057	0058=OUT058	0059=OUT059	0060=OUT060
0061=OUT061	0062=OUT062	0063=OUT063	0064=OUT064

$\text{Ctrl-E}$ : MENU    $\text{Ctrl-D}$ : RETURN    $\text{Ctrl-F}$ : SELECT SOURCE

Example of Setting Screen (Selectable Destination)

4. Press  $\text{Ctrl} - \text{F}$  to switch to the display allowing setting of the selectable sources.

Pressing  $\text{Ctrl} - \text{E}$  switches to the menu screen of the secondary station.

Pressing  $\text{Ctrl} - \text{D}$  returns to the menu screen of the primary station.

### • Procedure of setting SELECT SOURCE NAME

1. Select an item to set using the cursor key.
2. Pressing **[Enter]** establishes the source name input mode.
3. Enter the "Type + No." name or description name.
4. Press **[Enter]** to confirm the input contents.

Example of setting

Block (Used area)	Source (Input range)		Destination (Output range)	
	TOP	END	TOP	END
1	1	64	1	64
2	101	164	1	64
3	101	164	101	164

When the ranges of input and output selections are limited as shown in the above table, the setting display and the virtual matrix are configured as shown below.

SONY ROUTING SYSTEM SETUP MENU      BKS-R3216 V1.00    STATION NUMBER 4

SELECT SOURCE NAME

SRC	TOP	-SRC	END	=DST	TOP	-DST	END
001	IN001	-IN064	=OUT001	-OUT064			
002	IN101	-IN164	=OUT001	-OUT064			
003	IN101	-IN164	=OUT101	-OUT164			
004	.....	.....	=.....	.....			
005	.....	.....	=.....	.....			
006	.....	.....	=.....	.....			
007	.....	.....	=.....	.....			
008	.....	.....	=.....	.....			

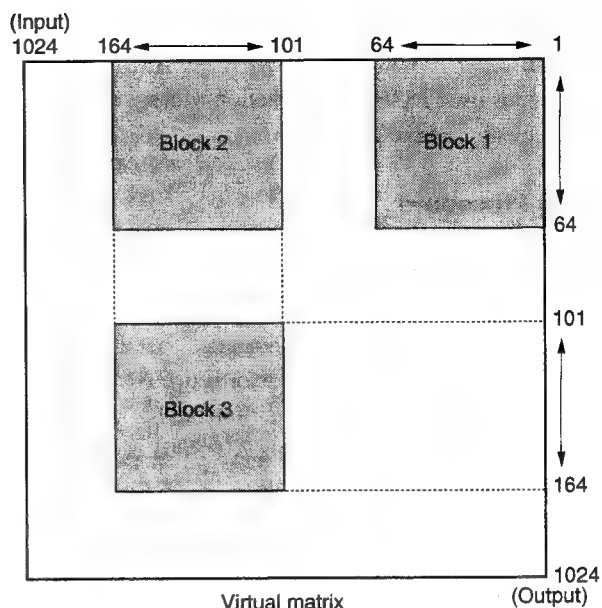
0=IN	1=OUT	2=SONY	3=VTR	4=SUP	5=CB	6=AIR	7=ME
8=PGM	9=CL	A=SL	B=L	C=RET	D=MIX	E=JEEP	F=OSC
G=L/A	H=REM	I=CAM	J=STDO	K=AUX	L=COV	M=BS	N=CS
O=SAT	P=CG	Q=WETH	R=TEST	S=HD	T=D1-	U=D2-	V=SEG

Ctrl-E: MENU   Ctrl-D: RETURN   Ctrl-N: Type + Num   Ctrl-F: SELECT DESTINATION

**Example of Setting Screen**  
(Setting the range of selectable sources)

#### Note

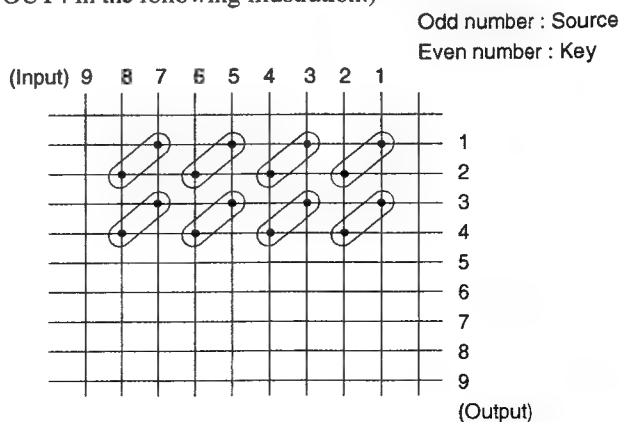
In BKS-R1607/R3210 of version V1.10 and higher, the signal switching cannot be performed when the destination range that is set by SELECT SOURCE NAME is exceeded even when the destination-type offset phantom has already been set using the menu item [H]. Setting must be performed so that the resultant value of destination after addition and subtraction of offset stays within the eight blocks of SELECT SOURCE NAME. When the offset value is zero (DST+0), the signal switching can be operated.



#### Notes

1. When selecting the destinations that have no limit of range, the selectable range of sources is from 001 to 1024.
2. BKS-R3216/R1617/R1618/R3219/R3220/R1621 makes all the sources within the range that includes the selected destinations valid. OUT001 makes the multiple ranges of IN001 to IN064 and IN101 to IN164 valid when the selection is made as shown in "Example of Setting Screen".

In BKS-R1607/R3210 of version V1.10 and higher, a pair of source signal and key signal can be output as an inter-locked pair using the offset-type phantom. (See OUT1 to OUT4 in the following illustration.)



**Example of setting :**

SRC TOP-SRC END=DST TOP-DST END indicates the applicable range of the offset-type phantom on the screen of example setting. When the range from IN001 to IN008, and the range from OUT001 to OUT004 are to be set as the applicable range, enter as follows.

IN001-IN008=OUT001-OUT004
---------------------------

When you want execute the combinations of OUT001<IN001 and OUT002<IN002, or the combinations of OUT003<IN001 and OUT004<IN002, enter as follows.

Phantom:
IN001: DST+0<IN001-10000000
IN001: DST+1<IN002-10000000

Here, 10000000 means the level-1. The level-2 corresponds to 0100000.

When the above settings are performed and the buttons OUT001 and IN001 are pressed in this order, OUT001 is replaced by OUT002 with DST+1.

Then,  
OUT001<IN001  
OUT002<IN002  
of the level-1 are switched.

When the buttons OUT003 and IN001 are pressed in this order,  
OUT003<IN001  
OUT004<IN001  
of the level-1 are switched.

When OUT005 and IN001 are pressed, DST+0<IN001-10000000 (i.e., OUT005<IN001) only are switched since it is outside the applicable range.  
Set the phantom for IN003, IN005 and IN007 in the same way.

This is the function to display the source names that are expanded by combining the two switchers for the purpose of expanding numbers of input.

When a route is set, the source that is connected to the route destination, is automatically chased out the and the name of the source is displayed. In an example shown below, IN001 of the switcher A is displayed as the source name when OUT017 of the switcher B is selected.

It has another function as follows. When a request of switching including the expanded destination, is issued, crosspoint of the route destination side is automatically switched. For example, when IN001-OUT001 of the switcher A is switched, IN005-OUT017 of the switcher B is also switched at the same time.



1. Select the menu item [R] of the secondary station.
2. Select the desired item using the cursor key.
3. Pressing **Enter** establishes the route setting mode. When **Enter** is pressed again before entering data, registration is canceled.
4. Enter the "Type + No." name or description name. (The setting methods remains the same as that of phantom. Refer to the description of the secondary station's menu item [H : SET PHANTOM TABLE]. However, the destination name of the switcher-A to which source of the switcher-B is connected, should be input on this menu, instead of the phantom name.)
5. Press **Enter** to confirm the input contents.
6. Pressing **Ctrl** - **E** switches to the menu screen of the secondary station. Pressing **Ctrl** - **D** returns to the menu screen of the primary station.

### Example of Setting Screen

In the setting screen example as shown above, the cross-point of IN005-OUT017 is switched at the same time when a crosspoints including OUT001 (ex. IN002-OUT001) is switched. Then, source (IN002) of the switcher-A's OUT001 is displayed (IN002-OUT017) for OUT017 of the switcher-B. The above described operation is executed by selecting OUT001 and IN002 from the remote control unit. However, it is recommended to set the phantom of IN002: OUT001 < IN002 beforehand on the remote control panel, because the operation of selecting IN002-OUT001 instead of OUT017 looks unnatural when IN002-OUT017 is going to be taken.

To add the offset amount to the selected destination, enter **+** in the DEST column before pressing **Enter**. After “DEST +” is displayed, enter the offset value (0 to 1023) and press **Enter** to store the value.

Each level can be set by selecting ON (1) or OFF (0).

## S : DISPLAY DESCRIPTION NAME

### Purpose

This menu is used to check the group and names of the Description transferred from the primary station.

### Check Procedure

1. When **Enter** or **SPACE** is pressed, the screen will be changed to the next page.
2. When **BS** or **DEL** is pressed, the screen will be changed to the previous page.
3. Press **Ctrl** - **E** to display the menu screen of the secondary station.  
Press **Ctrl** - **D** to display the menu screen of the primary station.

SONY ROUTING SYSTEM SETUP MENU				BKS-R3206 V3.10 STATION NUMBER 16			
GROUP No. = 1							
No.	Terminal Name	Description Name		No.	Terminal Name	Description Name	
1	DST- 001	OUT001	London	2	DST- 002	OUT002	NewYork
3	SRC- 001	IN001	Berlin	4	SRC- 002	IN002	Moscow
5	SRC- 003	IN003	Tokyo	6	SRC- 004	IN004	Cairo
7	SRC- 005	IN005	Berling	8	SRC- 006	IN006	Madrid
9	SRC- 007	IN007	Toronto	10	DST- 005	OUT005	Paris
11	DST- 008	OUT008	Rome	12	DST- 012	VTR012	OUT012
13	DST- 013	VTR013	OUT013	14	DST- 014	VTR014	OUT014
15	DST- 015	VTR015	OUT015	16	DST- 016	SONY016	OUT016
17	DST- 017	VTR017	OUT017	18	DST- 018	VTR018	OUT018
19	DST- 019	VTR019	OUT019	20	DST- 020	VTR020	OUT020
21	DST- 021	VTR021	OUT021	22	DST- 022	VTR022	OUT022
23	DST- 023	VTR023	OUT023	24	DST- 024	VTR024	OUT024
25	DST- 025	VTR025	OUT025	26	DST- 026	VTR026	OUT026
27	DST- 027	VTR027	OUT027	28	DST- 028	VTR028	OUT028
29	DST- 029	VTR029	OUT029	30	DST- 030	VTR030	OUT030
31	DST- 031	VTR031	OUT031	32	DST- 032	VTR032	OUT032
33	DST- 033	VTR033	OUT033	34	DST- 034	VTR034	OUT034
35	DST- 035	VTR035	OUT035	36	DST- 036	VTR036	OUT036
37	DST- 037	VTR037	OUT037	38	DST- 038	VTR038	OUT038
39	DST- 039	VTR039	OUT039	40	DST- 040	VTR040	OUT040
Ctrl-E:MENU    Ctrl-D:RETURN    Ctrl-H:Pg-Up    Ctrl-M:Pg-Dn							

Example of Setting Screen

### Note

In BKS-R1607/R1608/R3209/R3210 of version V1.10 and higher, the 160 description names that are transferred from the primary station can be registered in the range of inputs 512 × outputs 512 in the order of terminal number regardless of the block number. When you want to use more than 160 of the description names, transmit the names from the primary station after dividing the description names into several blocks.

The following operations are possible from the screen.

Look at destination from source side : **→** key

Look at source from destination side : **←** key

Return to the previous page : **↑** key

Move to the next page : **↓** key

SONY ROUTING SYSTEM SETUP MENU				BKS-R3210 V1.10 STATION NUMBER 6			
SOURCE							
name	Description			name	Description		
1 IN001	CAM001			2 IN002	CAM002		
3 IN003	CAM003			4 IN004	CAM004		
5 IN005	VTR005			6 IN006	VTR006		
7 IN007	VTR007			8 IN008	VTR008		
9 IN009	ONAI001			10 IN010	ONAI002		
11 IN011	ONAI003			12 IN012	ONAI004		
13 IN013	STADI01			14 IN014	STADI02		
15 IN015	STADI03			16 IN016	STADI04		
17 IN017	MONI001			18 IN018	MONI002		
19 IN019	IN019			20 IN020	IN020		
21 IN021	IN021			22 IN022	IN022		
23 IN023	IN023			24 IN024	IN024		
25 IN025	IN025			26 IN026	IN026		
27 IN027	IN027			28 IN028	IN028		
29 IN029	IN029			30 IN030	IN030		
31 IN031	IN031			32 IN032	IN032		
Ctrl-E:MENU    Ctrl-D:RETURN    Right:DESTINATION    Left:SOURCE							

Example of Setting Screen

SONY ROUTING SYSTEM SETUP MENU				BKS-R3210 V1.10 STATION NUMBER 6			
DESTINATION							
name	Description			name	Description		
1 OUT001	DST001			2 OUT002	DST002		
3 OUT003	DST003			4 OUT004	DST004		
5 OUT005	DST005			6 OUT006	DST006		
7 OUT007	DST007			8 OUT008	DST008		
9 OUT009	OUT009			10 OUT010	OUT010		
11 OUT011	OUT011			12 OUT012	OUT012		
13 OUT013	OUT013			14 OUT014	OUT014		
15 OUT015	OUT015			16 OUT016	OUT016		
17 OUT017	OUT017			18 OUT018	OUT018		
19 OUT019	OUT019			20 OUT020	OUT020		
21 OUT021	OUT021			22 OUT022	OUT022		
23 OUT023	OUT023			24 OUT024	OUT024		
25 OUT025	OUT025			26 OUT026	OUT026		
27 OUT027	OUT027			28 OUT028	OUT028		
29 OUT029	OUT029			30 OUT030	OUT030		
31 OUT031	OUT031			32 OUT032	OUT032		
Ctrl-E:MENU    Ctrl-D:RETURN    Right:DESTINATION    Left:SOURCE							

Example of Setting Screen

## U: SELECT REMOTE PROTOCOL

### Purpose

This menu is used to set channels A and B of REMOTE 2 (D-sub 9-pin) to loop-through. When the REMOTE 2 control mode is set to DIRECT, this menu is used to set the protocol and the conversion table of the input/output numbers.

There are three kinds of protocols.

- PRODUCTION SWITCHER PROTOCOL
- AUDIO MIXER PROTOCOL
- CART PROTOCOL

### Note

AUDIO MIXER PROTOCOL was known as "SWITCHER PROTOCOL" before.

Set the conversion table of the input/output numbers so that the input/output numbers defined by the external controller will correspond to those of the routing switcher. In the THROUGH mode, there will be no setting menu for channel B. For details of the DIRECT mode, refer to the menu item [U : SELECT CONTROL MODE] in the primary station.

### Setting Procedure

1. Select menu item [U].
2. "SELECT RS-422 CHANNEL =? (A B) A" will be displayed. Input A or B using the alphabet keys and press **[Enter]**. The screen will change to the setting screen of the selected channel.

SELECT REMOTE PROTOCOL	DVS-V6464B V2.10 STATION NUMBER 1
SELECT RS-422 CHANNEL ? (A--B) A	
Ctrl-E: RETURN TO MENU	

3. The cursor will be placed at "1=001" of "SET DESTINATION TRANSCODE".  
When **[Enter]** is pressed, "1=" will be displayed and the number can be typed. The left "1" in "1=001" indicates the input/output number of the switcher and the right "001" indicates the command number received.
4. Input a number between 1 and 128 and press **[Enter]** set it. The cursor will move to the next number. If "00" is input, "001" will be displayed. If number 129 or later is input, the previous number will be displayed. If **[Enter]** is pressed without inputting anything, invalid crosspoints will be set so that the screen will show "...", and the cursor will move to the next number. When **[Ctrl] - [F]** is pressed before the setting, the previous number will be displayed and the cursor will move to the next number.

### Note

The same number cannot be set to more than one place. If the same number is used, the message "\* \* \*" is used already; Ignored" will be displayed and the cursor will stop at its current position.

SELECT REMOTE PROTOCOL		DVS-V6464B V2.10 STATION NUMBER 1					
CHANNEL = A	REMOTE = CART+	UA2 = 10000000					
SET DESTINATION TRANSCODE (CN NUM. = REMOTE NUM.)							
1=001	2=002	3=003	4=004	5=005	6=006	7=007	8=008
9=009	10=010	11=011	12=012	13=013	14=014	15=015	16=016
17=017	18=018	19=019	20=020	21=021	22=022	23=023	24=024
25=025	26=026	27=027	28=028	29=029	30=030	31=031	32=032
33=033	34=034	35=035	36=036	37=037	38=038	39=039	40=040
41=041	42=042	43=043	44=044	45=045	46=046	47=047	48=048
49=049	50=050	51=051	52=052	53=053	54=054	55=055	56=056
57=057	58=058	59=059	60=060	61=061	62=062	63=063	64=064
SET SOURCE TRANSCODE (CN NUM. = REMOTE NUM.)							
1=001	2=002	3=003	4=004	5=005	6=006	7=007	8=008
9=009	10=010	11=011	12=012	13=013	14=014	15=015	16=016
17=017	18=018	19=019	20=020	21=021	22=022	23=023	24=024
25=025	26=026	27=027	28=028	29=029	30=030	31=031	32=032
33=033	34=034	35=035	36=036	37=037	38=038	39=039	40=040
41=041	42=042	43=043	44=044	45=045	46=046	47=047	48=048
49=049	50=050	51=051	52=052	53=053	54=054	55=055	56=056
57=057	58=058	59=059	60=060	61=061	62=062	63=063	64=064
CAS=065							
F1: REMOTE		F2: DEFAULT		F3: DEST.		F4: SOURCE	
Ctrl-E: RETURN TO MENU							

### Example of Setting Screen

### Operating Function Keys

**[F1]** : REMOTE (To switch the protocol)

1. When **[F1]** is pressed, the cursor will move to "REMOTE".
2. When **[Enter]** is pressed, the protocol will be switched. To change the "\* \* \*" of "UA2 =", select the desired position with the cursor and press **[Enter]** to switch I/O alternately.

### Note

The description "\* \* \*" of "UA2 =\* \* \*" on the above menu corresponds to the DIP switch setting which LSB is at the left end.

**[F2]** : DEFAULT (Initializing the data)

1. When **[F2]** is pressed, "DEFAULT ok? (y/n)" will be displayed at the bottom of the screen.
2. When **[Y]** is pressed, the program will be executed. When **[N]** is pressed, it will not be executed.

**[F3]** : DEST

When **[F3]** is pressed, the cursor will move to the destination side.

**[F4]** : SOURCE

When **[F4]** is pressed, the cursor will move to the source side.

## V : DISPLAY UNIT STATUS (Except for HDS-V3232)

### Purpose

This menu is used to display the status of the hardware such as boards, etc.

#### Note

For the input/output boards and matrix boards of DVS-V3232B, channel 1 to 32 will be displayed. And FAN 1 and 2 will be displayed for DVS-V3232B.

### Operating Procedure

1. Select menu item [V].
2. Press **[Ctrl] - [E]**. The menu screen will be displayed.

DISPLAY UNIT STATUS				DVS-V6464B V2.10 STATION NUMBER 2			
INPUT BOARD		INPUT CONNECTOR BOARD		INPUT CASCADE CONNECTOR BOARD			
01-32	REV. 00	01-16	BNC	01-32	VALID		
33-64	REV. 00	17-32	BNC	33-64	VALID		
		33-48	BNC				
OUTPUT BOARD		49-64	INVALID	OUTPUT CASCADE CONNECTOR BOARD			
01-32	INVALID			01-32	VALID		
33-64	REV. 00	OUTPUT CONNECTOR BOARD		33-64	VALID		
		01-08	BNC				
MATRIX BOARD		09-16	CASCADE	REFERENCE SIGNAL MISSING			
01-32 (OUT)	REV. 00	17-24	CASCADE				
33-64 (OUT)	REV. 00	25-32	BNC SELECT	FIELD			
		33-40	CASCADE				
CONTROL BOARD		41-48	CASCADE POWER SUPPLIES				
MAIN S-BUS RS422		49-56	CASCADE A ON				
M	V2.10	V2.02	V2.10	57-64	INVALID	B	INVALID
E	INVALID						
OPTION BOARD		CONNECTOR BOARD		FAN1	FAN2	FAN3	FAN4
				ROT	ROT	ROT	ROT
	INVALID	VALID					
Ctrl-E: RETURN TO MENU							

Example of Display

## Y : DISPLAY TABLE DATA (Except for HDS-V3232)

### Purpose

This menu is used to display the table data set with the control terminal.

### Operation Procedure

1. Select menu item [Y]. The following message will be displayed at the bottom of the screen.  
Display: "DISPLAY TABLE DATA? (y/n)"
2. Press **[Y]**, and the 4:2:2/4 fsc setting value will be displayed in hexadecimal. Press **[A]**, and the table data will be displayed in hexadecimal.  
When **[N]** is pressed, the table data display will be cancelled.
3. When **[SPACE]** is pressed during the display, the display will be interrupted. When **[SPACE]** is pressed once again, the display will begin.
4. Press **[Ctrl] - [E]** to stop the display. The menu screen of the secondary station will be displayed.

DISPLAY TABLE DATA				DVS-V6464B V2.10 STATION NUMBER 17			
0000:49	4E	00	00	00	00	4F	55 54 00 00 00 00 00 : IN.....OUT.....
0010:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0020:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0030:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0040:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0050:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0060:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0070:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
0080:56	49	44	00	00	00	41	31 00 00 00 00 00 00 : VID.....A1.....
0090:41	32	00	00	00	00	34	00 00 00 00 00 00 00 : A2.....4.....
00A0:35	00	00	00	00	00	36	00 00 00 00 00 00 00 : 5.....6.....
00B0:37	00	00	00	00	00	38	00 00 00 00 00 00 00 : 7.....8.....
00C0:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
00D0:00	00	00	00	00	00	00	00 00 00 00 00 00 00 : .....
00E0:00	00	00	00	00	00	02	FF FF 10 00 00 02 : .....
Ctrl-E: RETURN TO MENU							

Example of Display

#### Note

For the details of the table data, refer to the S-BUS Protocol Manual.

Y : SET DISPLAY MODES (BKS-R3216/R1617/R1618/R3219/R3220/R1621)

Purpose

This menu is used to set the display mode.  
The setting contents are as follows.

DISPLAY MODES (BKS-R3216/R3220):  
Selects the display type. (when J : NAME STYLE (DESCRIP.NAME) is selected in the primary station menu.)

- NORMAL = Normal display
- 2 + 2CHAR = Displays two letters before and after the name.
- 4CHAR = Displays four letters from the beginning of the name.

Note

If 2 : 2 + 2CHAR or 3 : 4CHAR is selected when J : NAME STYLE (Type + Num) is selected in the primary station menu, the two letters and two numbers of the type name are displayed.

PANEL FUNCTION (BKS-R1617/R1618/R3219/R1621):  
Sets the operation mode of the panel.

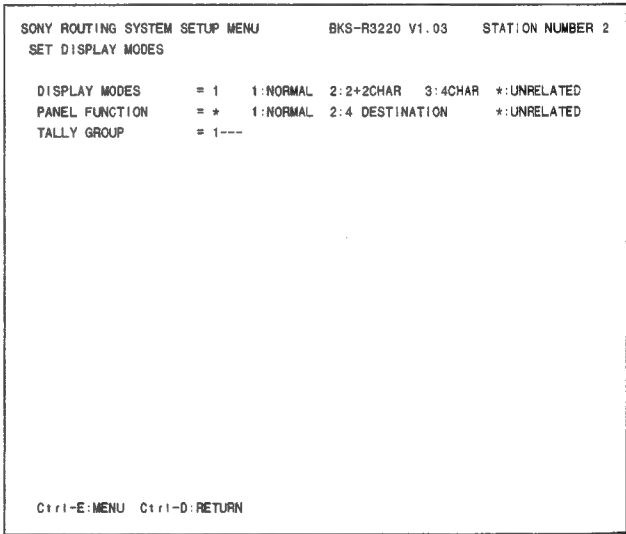
- NORMAL = Normal selection mode
- 4 DESTINATION = Destinations can be set for each block of the source button that consists of four blocks.  
Set each source button and also set the destination of each block using the menu item [N : SET PANEL TABLE].

TALLY GROUP

Selects the tally group.

Setting Procedure

1. Select the menu item [Y].
2. The cursor appears in "DISPLAY MODES = 1".  
Move the cursor to an arbitrary mode and press **Enter** establishes the input mode.
3. Enter the desired number with the numeric keys.  
Press **Enter** to set the number ; the cursor moves to the next setting item.  
If you do not want to change the default value, press **Enter** without entering any number.
4. To set "TALLY GROUP", move the cursor to the position of the desired tally (in the case of tally 2, second "-" from the left) and press **Enter**. The item is toggled on and off every time **Enter** is pressed.  
(When the number is displayed, the item is ON. When "-" is displayed, the item is OFF.)



Example of Setting Screen



## Z: SELECT SDI FORMAT (Except for HDS-V3232)

### Purpose

This menu is used to set the format of signals fed to the input/output board of DVS-V3232B and DVS-V6464B with the control terminal.

This setting is available when the manual switch for the format on each input/output board is OFF.

### Setting Procedure

1. Select menu item [Z].
2. Select a channel line using the cursor to be set. (The channels will be switched by eight channels. Displayed signal formats that are enclosed by the round brackets as "(4:2:2)" have been set on the board and cannot be modified with the control terminal.
3. When [Enter] is pressed, the setting will change ("4:2:2" → "4 fsc NTSC" → "4 fsc PAL").
4. Press [S] (Table Set), and the content now appeared is copied to the area of SDI FORMAT TABLE.
5. Press [Ctrl] - [E] to stop the display and the menu screen of the secondary station will be displayed.

SELECT SDI FORMAT		DVS-V6464B V2.10 STATION NUMBER 1	
DESTINATION UNIT		SOURCE UNIT	
01 - 08 :	4:2:2	01 - 08 :	4:2:2
09 - 16 :	4fsc NTSC	09 - 16 :	4:2:2
17 - 24 :	4fsc PAL	17 - 24 :	4:2:2
25 - 32 :	4:2:2	25 - 32 :	4:2:2
33 - 40 :	4:2:2	33 - 40 :	4:2:2
41 - 48 :	4:2:2	41 - 48 :	4:2:2
49 - 56 :	( 4:2:2 )	49 - 56 :	( 4:2:2 )
57 - 64 :	4:2:2	57 - 64 :	4:2:2
SWITCHING FIELD		FIELD	
[F1]:FORMAT		[F2]:FIELD	
S:Table Set Ctrl-E:RETURN TO MENU			

Example of Setting Screen

### Note

Unless pressing [S], the data will be deleted when the power is turned off.

### Operating Function Keys

[F1] : FORMAT (Mode which sets the signal format by 8-channels)

[F2] : FIELD (Mode which sets the crosspoint switching field)

1. Press [F2]. The cursor will move to "SWITCHING FIELD" in the menu.
2. Press [Enter]. The setting will change. (ODD → EVEN → FIELD → ASYNC → ODD)  
All switching field in the switcher are determined by this setting.

### Note

To use RS-422A and S-BUS together, set the switching field as follows.

- ① When using the S-BUS and CART protocol together : ODD
- ② When using the S-BUS and PRODUCTION SWITCHER protocol together : FIELD

Note that the switching timing of the CART will not be accurate if the CART and PRODUCTION SWITCHERS protocols are used together.

Switching timing is not guaranteed in the combination of different switching fields.

For details of the signal switching timing, refer to "5-8. Signal Switching Timing".

**Z : SET PANEL STATUS (BKS-R3204/R3205/R3206)****Purpose**

Besides the remote control unit can be used alone, several units can be used together as if it were one unit with expanded sources and destinations. When using several units together, one will serve as the mother and the rest will serve as the daughters.

This menu is used to perform the settings necessary in such cases. The selection of stand alone use, mother use, and daughter use is performed in this menu in addition to the assignment of buttons on the front panel. If assigned as the mother station, a block number should be set. (up to 10 mothers can be registered.)

**Setting Procedure**

1. Select menu item [Z].
2. Place the cursor on "PANEL MODE=1" and press **Enter** to select an item. Selection should be performed using the following keys.  
 BKS-R3204 : 1. STAND ALONE    2. MOTHER  
                   3. DAUGHTER  
 BKS-R3205 : 1. STAND ALONE    2. MOTHER  
 BKS-R3206 : 1. STAND ALONE    2. MOTHER  
 If selection is not necessary, press **Enter** again.
3. Place the cursor on "KEY 1-8=S" and press **Enter** to set S or D. The button number is set in order from top left to right, then left bottom to right as shown below.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

To change to the next setting, press **Enter**.

4. When "PANEL MODE=2" (the MOTHER) is selected, move the cursor to "SET BLOCK NUMBER=X" and press **Enter** to enter block number. When **Enter** is pressed again, the block number will be set. If the mother station is set, the ID are displayed.

5. When "PANEL MODE=3" (the DAUGHTER) is selected on BKS-R3204, the MOTHER ID number is displayed as "MOTHER STATION ID= xx". The MOTHER ID number is set using the switch on the rear panel. If switch setting is 0, 1, 255, "Incorrect ID (0, 1, 255) is designated." is displayed, while "The designated ID is not found" is displayed if the mother station ID is not registered in the block.
6. In setting of BKS-R3206 different from BKS-R3204/R3205, there is no "SELECT SOURCE OR DESTINATION ASSIGNMENT". Use either "Type name + Number" or "the source direct" to designate the source name.  
 "PANEL LAYOUT= x" is displayed. Press **Enter** and input the numbers.
7. Press **Ctrl** - **E** to display to the menu screen of the secondary station.  
 Press **Ctrl** - **D** to display to the menu screen of the primary station.

**Note**

When "PANEL MODE=1" (the STAND ALONE) is selected on BKS-R3204 and BKS-R3205, all KEYS (1 to 32) can not be assigned as DESTINATION. If all is set as DESTINATION, the KEYS 1 to 8 are set to "KEYs 1 to 8=S" automatically.

```

SONY ROUTING SYSTEM SETUP MENU BKS-R3204 V3.10 STATION NUMBER 14
SET PANEL STATUS

PANEL MODE = 1
1:STAND ALONE 2:MOTHER 3:DAUGHTER

SET SOURCE OR DESTINATION ASSIGNMENT
KEY 1- 8 = S KEY 9-16 = S
KEY 17-24 = S KEY 25-32 = S
S:SOURCE D:DESTINATION

MOTHER STATION ID=12 (BKS-R3206)
MOTHER STATION BLOCK LIST
BLOCK 1 = STATION 12 | BLOCK 6 = .....
BLOCK 2 = STATION 5 | BLOCK 7 = .....
BLOCK 3 = STATION 2 | BLOCK 8 = .....
BLOCK 4 = STATION 3 | BLOCK 9 = .....
BLOCK 5 = ..... | BLOCK10 = .....

Ctrl-E:MENU Ctrl-D:RETURN
  
```

**Example of Setting Screen (BKS-R3204)**

```

SONY ROUTING SYSTEM SETUP MENU   BKS-R3205 V3.10 STATION NUMBER 11
SET PANEL STATUS

PANEL MODE = 1
      1: STAND ALONE      2: MOTHER

SET SOURCE OR DESTINATION ASSIGNMENT
KEY 1- 8 = S      KEY 9-16 = S
KEY 17-24 = S     KEY 25-32 = S
S: SOURCE          D: DESTINATION

SET BLOCK NUMBER=3
MOTHER STATION BLOCK LIST
BLOCK 1 = STATION 11 | BLOCK 6 = .....
BLOCK 2 = STATION 5  | BLOCK 7 = .....
BLOCK 3 = STATION 2  | BLOCK 8 = .....
BLOCK 4 = STATION 3  | BLOCK 9 = .....
BLOCK 5 = .....     | BLOCK10 = .....

Ctrl-E: MENU      Ctrl-D: RETURN

```

Example of Setting Screen (BKS-R3205)

```

SONY ROUTING SYSTEM SETUP MENU   BKS-R3206 V3.10 STATION NUMBER 2
SET PANEL STATUS

PANEL MODE = 1
      1: STAND ALONE      2: MOTHER

PANEL LAYOUT = 2
      1: KEY + NUMBER SELECT MODE
      2: SOURCE DIRECT SELECT MODE

SET BLOCK NUMBER = 2
MOTHER STATION BLOCK LIST
BLOCK 1 = STATION 11 | BLOCK 6 = .....
BLOCK 2 = STATION 5  | BLOCK 7 = .....
BLOCK 3 = STATION 2  | BLOCK 8 = .....
BLOCK 4 = STATION 3  | BLOCK 9 = .....
BLOCK 5 = .....     | BLOCK10 = .....

Ctrl-E: MENU      Ctrl-D: RETURN

```

Example of Setting Screen (BKS-R3206)

## Z : SET PANEL STATUS (BKS-R1607/R1608/ R3209/R3210/R3216/R1617/R1618/R3219/ R3220/R1621)

### Purpose

This is the function to set the various modes of the remote control unit. In the models corresponding this menu as shown above the multiple units can be connected in order to expand the number of sources and destinations which can be controlled simultaneously. Setting the mother panel and the daughter panels is performed from this menu. (Maximum ten mother panels can be set.)

Contents to be set are shown below.

### DISPLAY MODE

STATUS = Indicates the status of the primary station's crosspoint table.

PROMPT = The depressed button lit immediately.

### PROTECT MODE

ON AIR = Switching is performed from that panel even after protected.

NORMAL = Switching is prohibited after protected.

FLEXIBLE = Switching is prohibited after protected.

However, protections by other stations can be released.\*1

FLEX & OA = Uses the functions of both 1 : ON AIR and 3 : FLEXIBLE.\*1

### PHANTOM PROTECT

PART PROT = The phantoms that are not protected are switched.

FULL PROT = All phantoms cannot be switched when even one phantom on which protect is set to on, is included.

BUTTON LINK = All phantoms cannot be switched when the protect button is set to on.

### PANEL MODE

STAND ALONE = Stand alone panel

MOTHER = Mother panel

DAUGHTER = Daughter panel

### PANEL LAYOUT\*2

TYPE + NUM. = Selection of X-Y

DIRECT = Direct selection\*3

BPS = Source button selection\*1

KEYPAD = Description selection\*1

(Only BKS-R3216 is valid.)

\*1 : It is only applicable to BKS-R3216/R1617/R1618/R3219/R3220/R1621.

\*2 : It is only applicable to BKS-R3210/R3216.

\*3 : BKS-R1607/R1608/R3209/R3210

**LEVEL MODE\*<sup>1</sup>**

SINGLE = Single level selection

MULTI = Multiple level selection

**DEST SELECTION\*<sup>2</sup>**

DISABLE = Change of destination from the panel is prohibited.

ENABLE = Change of destination from the panel is allowed.

**ILLUMINATION LEVEL\*<sup>3</sup>**

Brightness of the button indicator : 1 (dark) to 8 (bright)

**MONITOR DESTINATION\*<sup>3</sup>**

Enter the name of the destination to be monitored (when the MONI button is selected).

**SOURCE OFFSET\*<sup>3</sup>**

0 = Use the same source as the destination to be monitored.

1 to 1023 = Use the source at the specified offset.

**CONTROL LEVELS\*<sup>3</sup>**

When you want to select any specific level from remote control unit, move the cursor to the desired level and press **[Enter]**. (When you want to select level-3, move the cursor to the third “-” position and press **[Enter]**.)

“-” = : Level selection will not be performed.

Other than “-” : A signal will be switched at the level.

When all indications show “-”, a signal is switched at the level which is set by the primary station.

\*1 : It is only applicable to BKS-R3210/R3216.

\*2 : It is only applicable to BKS-R1607/R1617.

\*3 : It is only applicable to BKS-R3216/R1617/R1618/R3219/R3220/R1621.

**Setting Procedure**

1. Select the menu item **[Z]**.
2. The cursor appears in “DISPLAY MODE = 1”.  
Move the cursor to an arbitrary mode and press **[Enter]** establishes the input mode.
3. Enter a number to select using the ten-keys.  
When **[Enter]** is pressed to confirm the input number, the cursor moves to the next setting item.  
When you do not want to change the default value, do not input any number, but press **[Enter]**.

SONY ROUTING SYSTEM SETUP MENU		BKS-R3220 V1.03		STATION NUMBER 11	
SET PANEL STATUS					
DISPLAY MODE	= 1	1:STATUS	2:PROMPT		
PROTECT MODE	= 2	1:ON AIR	2:NORMAL	3:FLEXIBLE	4:FLEX & OA
PHANTOM PROTECT	= 1	1:PART PROT	2:FULL PROT	3:BUTTON LINK	
PANEL MODE	= 1	1:STAND ALONE	2:MOTHER	3:DAUGHTER	
PANEL LAYOUT	= 1	1:TYPE + NUM	2:BPS	3:KEYPAD	*:UNRELATED
LEVEL MODE	= 1	1:SINGLE	2:MULTI	*:UNRELATED	
DEST SELECTION	= *	1:DISABLE	2:ENABLE	*:UNRELATED	
ILLUMINATION LEVEL	= 8	-1-8:MIN-MAX			
MONITOR DESTINATION	=				
SOURCE OFFSET	=	0000			
CONTROL LEVELS	=	-----			
BLOCK & MOTHER STATION LIST					
BLOCK 1	=		BLOCK 6	=	
BLOCK 2	=		BLOCK 7	=	
BLOCK 3	=		BLOCK 8	=	
BLOCK 4	=		BLOCK 9	=	
BLOCK 5	=		BLOCK10	=	
Ctrl-E:MENU Ctrl-D:RETURN					

**Example of Setting Screen**

4. Set the respective items in the same way as the steps 2 and 3.

However, set “PANEL MODE” (setting the mother and daughters panels) as follows.

**Mother panel :**

- 1) Select "PANEL MODE = 2" (mother machine).
- 2) Press **[Enter]**.

The following contents are displayed on the setting screen.

```

SET BLOCK NUMBER = *
MOTHER STATION BLOCK LIST
BLOCK 1 = ..... | BLOCK 6 = .....
BLOCK 2 = ..... | BLOCK 7 = .....
BLOCK 3 = ..... | BLOCK 8 = .....
BLOCK 4 = ..... | BLOCK 9 = .....
BLOCK 5 = ..... | BLOCK10 = .....

```

- 3) Input the unused BLOCK number of the BLOCK & MOTHER STATION LIST into the "\*" column.
- 4) Press **[Enter]** to confirm the input contents.

**Daughter panel :**

- 1) Select "PANEL MODE = 3" (daughter panel).
- 2) Press **[Enter]**.

The following contents are displayed on the setting screen.

```

MOTHER STATION ID = ** (The designated ID is not found)
MOTHER STATION BLOCK LIST
BLOCK 1 = STATION 6 | BLOCK 6 = .....
BLOCK 2 = ..... | BLOCK 7 = .....
BLOCK 3 = ..... | BLOCK 8 = .....
BLOCK 4 = ..... | BLOCK 9 = .....
BLOCK 5 = ..... | BLOCK10 = .....

```

- 3) Input the mother's STATION ID number of the BLOCK & MOTHER STATION LIST into the "\*\*" column.
  - 4) Press **[Enter]**.
- When the ID number is input correctly, model name of the mother panel appears as shown below.

```

MOTHER STATION ID = 6      (BKS-R1607)

```

5. Pressing **[Ctrl] - [E]** switches to the menu display of the secondary station.
- Pressing **[Ctrl] - [D]** returns to the menu display of the primary station.

**Notes**

1. Various modes must be set individually on the units on which mother panel and daughter panels are set.
  2. Set the mother panel first when setting the mother panel and daughter panel.
  3. Setting of the mother panel and daughter panel is not completed when the "PANEL MODE" setting alone is performed.
- Be sure to set the block numbers of mother panel and to set the STATION ID (MOTHER ID) of the daughter panel side.

**Note**

Checksum can be displayed from version V1.10 of the BKS series.

Use checksum to check if the program data is correct, in addition to the version number indication. (The PGM CHECKSUM is mainly used.)

The following three types of checksum are available.

**BOOT CHECKSUM=D039**

Checksum of the program area that is used for starting up the ROM.

**PGM CHECKSUM=630F**

Check of the area in which the actual programs are stored.

**ROM CHECKSUM=FF68**

Checksum of the entire ROM.

```

SONY ROUTING SYSTEM SETUP MENU      BKS-R3210 V1.10  STATION NUMBER 6
SET PANEL STATUS
DISPLAY MODE   = 1  1:STATUS      2:PROMPT
PROTECT MODE   = 2  1:ON AIR      2:NORMAL
PHANTOM PROTECT = 1  1:PART PROT  2:FULL PROT  3:BUTTON LINK
PANEL MODE     = 1  1:STAND ALONE  2:MOTHER    3:DAUGHTER
PANEL LAYOUT   = 2  1:TYPE + NUM  2:DIRECT    *:UNRELATED
LEVEL MODE     = 1  1:SINGLE      2:MULTI     *:UNRELATED
DEST SELECTION = *  1:DISABLE    2:ENABLE    *:UNRELATED

BLOCK & MOTHER STATION LIST
BLOCK 1 = ..... | BLOCK 6 = .....
BLOCK 2 = ..... | BLOCK 7 = .....
BLOCK 3 = ..... | BLOCK 8 = .....
BLOCK 4 = ..... | BLOCK 9 = .....
BLOCK 5 = ..... | BLOCK10 = .....

BOOT CHECKSUM=D039 PGM CHECKSUM=630F ROM CHECKSUM=FF68

Ctrl-E:MENU Ctrl-D:RETURN

```

**Example of Setting Screen**

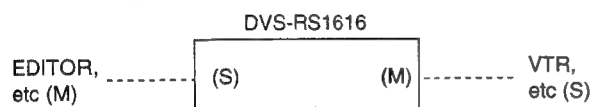
**Z : SELECT CONNECTION (DVS-RS1616 only)****Purpose**

As for DVS-RS1616, this menu is used to set, “M” (controlling side) or “S” (controlled side) for each 9-pin connector from 1 to 32.

If a controller is connected to a 9-pin connector, set to (S).

If a controlled device is connected to a 9-pin connector, set to (M).

When setting to (S), termination is automatically made.

**Setting Procedure**

1. Select the menu item [Z].
2. Select a input/output number using the cursor.
3. Press **[Enter]**, the setting status changes. (“M” → “S” → “M”)
4. Press **[S]** (TABLE SET), the content now appeared is copied to the table data.
5. Press **[Ctrl] – [E]** to stop the display and the menu screen of the secondary station will be displayed.

SELECT CONNECTION DVS-RS1616 V3.01 STATION NUMBER 5			
OUTPUT (INPUT)		INPUT	
TERMINAL: DIRECTION	TERMINAL: DIRECTION	TERMINAL: DIRECTION	TERMINAL: DIRECTION
01 (17) : M	09 (25) : M	01 : S	09 : S
02 (18) : M	10 (26) : M	02 : S	10 : S
03 (19) : M	11 (27) : M	03 : S	11 : S
:	:	:	:
08 (24) : M	16 (32) : M	08 : S	16 : S
S:TABLE SET			
Ctrl-E:RETURN TO MENU			

**Example of Setting Screen****Note**

Unless pressing **[S]**, the setting will be ignore.

**Z : SWITCHING FIELD (HDS-V3232 only)****Purpose**

This menu is used to set the crosspoint switching field of HDS-V3232 with the control terminal.

**Setting Procedure**

1. Select the menu item [Z].
2. Press **[Ctrl] – [E]** to stop the display and the menu screen of the secondary station will be displayed.

SWITCHING FIELD		HDS-V3232 V2.10 STATION NUMBER 1	
SWITCHING FIELD		FIELD	
F2:FIELD S:Table Set Ctrl-E:RETURN TO MENU			

**Example of Setting Screen****Note**

Unless pressing **[S]**, the data will be deleted when the power is turned off.

**Operating Function Key**

**[F2]** : FIELD (Mode which sets the crosspoint switching field)

1. Press **[F2]**. The cursor will move to “SWITCHING FIELD” in the menu.
2. Press **[Enter]**. The setting will change. (ODD → EVEN → FIELD → ASYNC → ODD)  
All switching field in the switcher are determined by this setting.

**Note**

To use RS-422A and S-BUS together, set the switching field as follows.

- ① When using the S-BUS and CART protocol together : ODD
- ② When using the S-BUS and PRODUCTION SWITCHER protocol together : FIELD

Note that the switching timing of the CART will not be accurate if the CART and PRODUCTION SWITCHERS protocols are used together.

Switching timing is not guaranteed in the combination of different switching fields.

For details of the signal switching timing, refer to “5-8. Signal Switching Timing”.

### 5-3. Setting Items of the Primary Station on Monitor S-BUS (BKDS-V3292B only)

Used for setting the units on the monitor S-BUS.

```

SET MONITOR FUNCTION          DVS-V6464B Monitor Bus I/F V2.10

      MODIFICATION COMMAND

F: SET ACTIVE UNIT NUMBER

M: SELECT MONITOR FUNCTION (COMBINED)

R: CALL SECONDARY STATION

                        Ctrl-E: RETURN TO MENU
  
```

Menu Screen of the Primary Station on Monitor S-BUS

#### Setting Procedure of Monitor Function

1. Select the menu item [R] of the primary station in order to call the menu screen of the secondary station set as the primary station on the monitor S-BUS.
2. Select the menu item [M] to call the menu screen of the primary station on the monitor S-BUS.
3. Set the menu item [F] and [M].
4. Select the menu item [R] to call the secondary station on the monitor S-BUS.
5. Set each menu item on the screen.
6. Press **Ctrl** - **Z** to return to the menu screen of the primary station on the monitor S-BUS.
7. Set each item of all secondary stations, repeating the procedure of step 4 to 6.
8. Press **Ctrl** - **D** to return to the menu screen of the primary station on the standard S-BUS.

#### Note

If there are multiple monitor S-BUS data links, repeat the procedure of step 1 to 8 for each link.

### F: SET ACTIVE UNIT NUMBER

#### Purpose

This menu is used to enable the units connected to the data link of the monitor S-BUS to communicate.

#### Setting Procedure

1. Select menu item [F].
2. Select the secondary station using the cursor whose communication will be valid.
3. When **Enter** is pressed, the setting displayed will change "E" → "Blank" → "E". Only the secondary stations displayed with "E" are valid. ("M" indicates the primary station.)
4. When **Ctrl** - **E** is pressed, the menu screen of the primary station on the monitor S-BUS will be displayed.

#### Note

As the response will become slower if there are many secondary stations, make the secondary stations not connected invalid.

"\*" indicates out of the control area.

```

ENABLE ACTIVE UNIT FOR STATION NUMBER  DVS-V6464B Monitor Bus I/F V2.10

      1 2 3 4 5   6 7 8 9 10  1112131415  1617181920
      +
001-020 M E E E E   E E E E E   E E E E E   E E E E E
021-040 E E E E E   E E E E E   E E E E E   E E E E E
041-060 E E E E E   E E E E E   E E E E E   E E E E E
061-080 E E E E E
081-100
101-120
121-140
141-160
161-180
181-200
201-220
221-240
241-254

                        * * * * *
                        CTRL-E: RETURN TO MENU
  
```

Example of Setting Screen

#### Notes

1. Station ID of the primary station is always 1 regardless of the DIP switch setting on the CPU board.
2. Station ID of the secondary station is determined with the DIP switch setting. Do not assign the same number on two or more units as station ID on both standard S-BUS and monitor S-BUS.  
Number that can be registered as secondary station ID are 2 to 254.

---

## **M: SELECT MONITOR FUNCTION**

### **Purpose**

This menu is for setting the connection to use the input monitor and output monitor in series or independently. To monitor the input and output monitor lines using separate monitors, set the SEPARATED mode. To monitor them together on one monitor, set the COMBINED mode.

### **Setting Procedure**

1. Select menu item [M].  
The following appears.  
COMBINED : series connection  
SEPARATED : independent use
2. Press **Ctrl** – **E** to display the menu screen of the primary station on the monitor S-BUS.

---

## **R: CALL SECONDARY STATION**

### **Purpose**

This menu is used to call the secondary station on the monitor S-BUS.

### **Setting Procedure**

1. Select menu item [R].
2. Enter the station number using the numerical keys, and press **Enter** to call it.
3. The menu screen of the secondary station on the monitor S-BUS will be displayed.



## 5-4. Setting Items of the Secondary Station on Monitor S-BUS (BKDS-V3293B only)

### M: SET AVAILABLE MONITOR LINE (DVS-V3232B/V6464B + BKDS-R3292B)

```

SET MONITOR FUNCTION      DVS-V6464B Monitor Bus I/F V2.10 STATION NUMBER 23

MODIFICATION COMMAND

M: SET AVAILABLE MONITOR LINE INPUT=( ENABLE ) OUTPUT=( ENABLE )

Ctrl-Z: RETURN
    
```

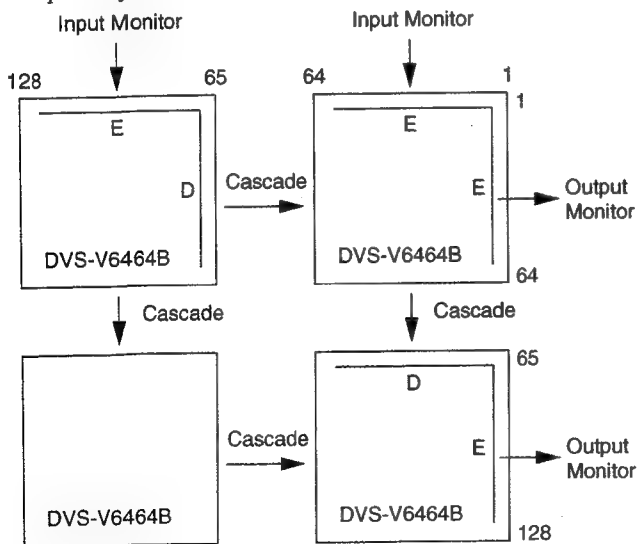
Menu Screen of the Secondary Station on Monitor S-BUS (DVS-V3232B/V6464B)

#### Purpose

This menu is used to set the input monitor and output monitor to valid or invalid.

#### Setting Procedure

1. Select menu item [M].
2. Select the source/destination using the cursor, and press **Enter** to change the setting. ("ENABLE" → "DISABLE" → "ENABLE")
3. Press **Ctrl** - **Z** to display the menu screen of the primary station on the monitor S-BUS.



E : Enable  
D : Disable

#### Note

Be sure to set the monitor line to "DISABLE" in cascade connection.  
If set to "ENABLE", the monitor may not be performed properly.

### L : COPY TABLE DATA <MONITOR MENU>

#### Purpose

This menu is used to copy the setting contents of the remote control unit. This is applied to BKS-R3204 and BKS-R3205.

#### Setting Procedure

1. Select menu item [L]. This item can be selected from both the menu and another setting screen.
2. The message "Station Number?" will be displayed. Enter the station number to be copied.
3. When **Enter** is pressed, the table data will be copied and the screen will return to the setting screen. When **Ctrl** - **E** is pressed again, the menu screen of the secondary station on the monitor S-BUS will be displayed.
4. When **Ctrl** - **Z** is pressed, menu screen of the primary station on the monitor S-BUS will be displayed.

```

MONITOR SYSTEM SETUP MENU.      BKS-R3204 V3.10 STATION NUMBER 6

Station Number ?

Ctrl-E: MENU      Ctrl-Z: RETURN
    
```

#### Example of Setting Screen

Data set on the menu item [N : SET PANEL TABLE] are copied.

**N: SET PANEL TABLE (BKS-R1607/R1608/R3204/R3205/R3209/R3210) <MONITOR MENU>****Purpose**

This menu is used to assign source/destination name to each source/destination selection button.

In the monitor mode, the button color of the remote control unit will be green for both source and destination.

**Setting Procedure**

1. Select menu item [N].
2. Select a button number using the cursor.
3. When **[Enter]** is pressed, the name can be typed.  
To delete the registration, press **[Enter]** before inputting the name.
4. a) When [J : NAME STYLE (Type + Num)] is selected in the primary station menu, input the type name (between 0 and F) and the number for the source and destination.  
b) Each time **[Ctrl] - [N]** is pressed when [J : NAME STYLE (DESCRIP. NAME)] is selected in the primary station menu, the following input modes will be switched alternately.

Description name input mode :

When "Ctrl N: Type + Num" is displayed on the screen, it means that the name mode will be changed to "Type + Number" by pressing **[Ctrl] - [N]**.  
Inputs the Description name from the first to seventh characters with alphabet and numerical keys.

"Type + Number" name input mode :

Same as a)

**Note**

If the Description name has been set for the input/output number the display of Description has priority to the display of "Type + Number" even if the "Type + Number" name is input.

5. When **[Enter]** is pressed, the source name is set.
6. When **[Ctrl] - [E]** is pressed, the screen will return to the menu screen of the secondary station on the monitor S-BUS.  
When **[Ctrl] - [Z]** is pressed, the screen will return to the menu screen of the primary station on the monitor S-BUS.  
When **[Ctrl] - [D]** is pressed, the screen will return to the menu screen of the primary station on the standard S-BUS.

```

MONITOR SYSTEM SETUP MENU   BKS-R1607 V1.00   STATION NUMBER 3
SET PANEL TABLE (SOURCE)   CONTROL DESTINATION = OUT001
01 KEY=IN001  02 KEY=IN002  03 KEY=IN003  04 KEY=IN004
05 KEY=IN005  06 KEY=IN006  07 KEY=IN007  08 KEY=IN008
09 KEY=..... 10 KEY=..... 11 KEY=..... 12 KEY=.....
13 KEY=..... 14 KEY=..... 15 KEY=..... 16 KEY=.....
17 KEY=IN009  18 KEY=IN010  19 KEY=IN011  20 KEY=IN012
21 KEY=IN013  22 KEY=IN014  23 KEY=IN015  24 KEY=IN016
25 KEY=..... 26 KEY=..... 27 KEY=..... 28 KEY=.....
29 KEY=..... 30 KEY=..... 31 KEY=..... 32 KEY=.....

```

```

SET PANEL TABLE (DESTINATION)
01 KEY=..... 02 KEY=..... 03 KEY=..... 04 KEY=.....
05 KEY=..... 06 KEY=..... 07 KEY=..... 08 KEY=.....
09 KEY=OUT001 10 KEY=OUT002 11 KEY=OUT003 12 KEY=OUT004
13 KEY=OUT005 14 KEY=OUT006 15 KEY=OUT007 16 KEY=OUT008
17 KEY=..... 18 KEY=..... 19 KEY=..... 20 KEY=.....
21 KEY=..... 22 KEY=..... 23 KEY=..... 24 KEY=.....
25 KEY=OUT009 26 KEY=OUT010 27 KEY=OUT011 28 KEY=OUT012
29 KEY=OUT013 30 KEY=OUT014 31 KEY=OUT015 32 KEY=OUT016

```

```

0=IN  1=OUT  2=... 3=... 4=... 5=... 6=... 7=...
8=... 9=... A=... B=... C=... D=... E=... F=...

```

Ctrl-E:MENU Ctrl-D:RETURN Ctrl-N:Type + Num

**Example of Setting Screen****Notes**

1. Set the table data of BKS-R3204/R3205/R3206 by eight buttons previously in the menu item [Z : SET ----- PANEL STATUS]. If "KEY = ----" is displayed on the key number position, the name can not be input.
2. Be sure to set either source or destination on the respective buttons (keys) when setting the BKS-R1607/R1608/R3209/R3210.  
If both source and destination are set to the same button (key), it will cause malfunction.
3. When setting description names to the source/destination buttons, select a name from the description name group sent to the remote control unit.  
If other names are input, these will not be set even if the **[Enter]** button is pressed.  
In such cases, transfer the group including the desired description name from the primary station.

**Note**

In BKS-R1607 of version V1.10 and higher, any desired button among the sixteen buttons can be set as a TAKE button.

When this setting is performed, the name selected by the SELECTOR knob on the front panel can be taken by pressing the TAKE button.

(Maximum inputs 512 × outputs 512)

The actual setting procedure is as follows. Select a key from the source side which you want to use as the TAKE button. Press the **T** button.

SONY ROUTING SYSTEM SETUP MENU				BKS-R1607 V1.10		STATION NUMBER 12	
SET PANEL TABLE (SOURCE)				CONTROL DESTINATION = OUT244			
01 KEY=SRC004	02 KEY=SRC005	03 KEY=SRC006	04 KEY=SRC001				
05 KEY=SRC002	06 KEY=SRC003	07 KEY=SRC007	08 KEY=SRC008				
09 KEY=SRC009	10 KEY=SRC010	11 KEY=SRC013	12 KEY=SRC014				
13 KEY=.....	14 KEY=.....	15 KEY=.....	16 KEY=TAKE				
SET PANEL TABLE (DESTINATION)							
01 KEY=.....	02 KEY=.....	03 KEY=.....	04 KEY=.....				
05 KEY=.....	06 KEY=.....	07 KEY=.....	08 KEY=.....				
09 KEY=.....	10 KEY=.....	11 KEY=.....	12 KEY=.....				
13 KEY=OUT001	14 KEY=OUT012	15 KEY=OUT003	16 KEY=.....				
0=SRC	1=OUT	2=2	3=3	4=4	5=5	6=6	7=7
8=8	9=9	A=A	B=B	C=C	D=D	E=E	F=F
Ctrl-E:MENU Ctrl-D:RETURN Ctrl-N:DESCRIP.NAME T:TAKE							

Example of Setting Screen

## S : DISPLAY DESCRIPTION NAME

### <MONITOR MENU>

**Purpose**

Check the groups and their names of the description names that are transferred from the primary station.

**Check Procedure**

1. Press either **Enter** or **SPACE** to view the next page.
2. Press either **BS** or **DEL** to view the previous page.
3. Press **Ctrl** - **E** to return to the menu screen of the secondary station.  
Press **Ctrl** - **D** to return to the menu screen of the primary station.





MONITOR SYSTEM SETUP MENU				BKS-R3206 V3.10				STATION NUMBER 16	
GROUP No. = 1									
No.	Terminal Name	Description Name		No.	Terminal Name	Description Name			
1	DST- 001	OUT001	London	2	DST- 002	OUT002	NewYork		
3	SRC- 001	IN001	Berlin	4	SRC- 002	IN002	Moscow		
5	SRC- 003	IN003	Tokyo	6	SRC- 004	IN004	Cairo		
7	SRC- 005	IN005	Berling	8	SRC- 006	IN006	Madrid		
9	SRC- 007	IN007	Toronto	10	DST- 005	OUT005	Paris		
11	DST- 008	OUT008	Rome	12	DST- 012	VTR012	OUT012		
13	DST- 013	VTR013	OUT013	14	DST- 014	VTR014	OUT014		
15	DST- 015	VTR015	OUT015	16	DST- 016	SONY016	OUT016		
17	DST- 017	VTR017	OUT017	18	DST- 018	VTR018	OUT018		
19	DST- 019	VTR019	OUT019	20	DST- 020	VTR020	OUT020		
21	DST- 021	VTR021	OUT021	22	DST- 022	VTR022	OUT022		
23	DST- 023	VTR023	OUT023	24	DST- 024	VTR024	OUT024		
25	DST- 025	VTR025	OUT025	26	DST- 026	VTR026	OUT026		
27	DST- 027	VTR027	OUT027	28	DST- 028	VTR028	OUT028		
29	DST- 029	VTR029	OUT029	30	DST- 030	VTR030	OUT030		
31	DST- 031	VTR031	OUT031	32	DST- 032	VTR032	OUT032		
33	DST- 033	VTR033	OUT033	34	DST- 034	VTR034	OUT034		
35	DST- 035	VTR035	OUT035	36	DST- 036	VTR036	OUT036		
37	DST- 037	VTR037	OUT037	38	DST- 038	VTR038	OUT038		
39	DST- 039	VTR039	OUT039	40	DST- 040	VTR040	OUT040		
Ctrl-E:MENU				Ctrl-D:RETURN		Ctrl-H:Pg-Up		Ctrl-M:Pg-Dn	

Example of Setting Screen

**Note**

In BKS-R1607/R1608/R3209/R3210 of version V1.10 and higher, the 160 description names that are transferred from the primary station can be registered in the range of inputs 512 × outputs 512 in the order of terminal number regardless of the block number. When you want to use more than 160 of the description names, transmit the names from the primary station after dividing the description names into several blocks.

The following operations are possible from the screen.

- Look at destination from source side :  key
- Look at source from destination side :  key
- Return to the previous page :  key
- Move to the next page :  key

MONITOR SYSTEM SETUP MENU		BKS-R3210 V1.10	STATION NUMBER 6
SOURCE			
name	Description	name	Description
1 IN001	CAM001	2 IN002	CAM002
3 IN003	CAM003	4 IN004	CAM004
5 IN005	VTR005	6 IN006	VTR006
7 IN007	VTR007	8 IN008	VTR008
9 IN009	ONAI001	10 IN010	ONAI002
11 IN011	ONAI003	12 IN012	ONAI004
13 IN013	STADI01	14 IN014	STADI02
15 IN015	STADI03	16 IN016	STADI04
17 IN017	MONI001	18 IN018	MONI002
19 IN019	IN019	20 IN020	IN020
21 IN021	IN021	22 IN022	IN022
23 IN023	IN023	24 IN024	IN024
25 IN025	IN025	26 IN026	IN026
27 IN027	IN027	28 IN028	IN028
29 IN029	IN029	30 IN030	IN030
31 IN031	IN031	32 IN032	IN032

Ctrl-E:MENU Ctrl-D:RETURN Right:DESTINATION Left:SOURCE

Example of Setting Screen

MONITOR SYSTEM SETUP MENU		BKS-R3210 V1.10	STATION NUMBER 6
DESTINATION			
name	Description	name	Description
1 OUT001	DST001	2 OUT002	DST002
3 OUT003	DST003	4 OUT004	DST004
5 OUT005	DST005	6 OUT006	DST006
7 OUT007	DST007	8 OUT008	DST008
9 OUT009	OUT009	10 OUT010	OUT010
11 OUT011	OUT011	12 OUT012	OUT012
13 OUT013	OUT013	14 OUT014	OUT014
15 OUT015	OUT015	16 OUT016	OUT016
17 OUT017	OUT017	18 OUT018	OUT018
19 OUT019	OUT019	20 OUT020	OUT020
21 OUT021	OUT021	22 OUT022	OUT022
23 OUT023	OUT023	24 OUT024	OUT024
25 OUT025	OUT025	26 OUT026	OUT026
27 OUT027	OUT027	28 OUT028	OUT028
29 OUT029	OUT029	30 OUT030	OUT030
31 OUT031	OUT031	32 OUT032	OUT032

Ctrl-E:MENU Ctrl-D:RETURN Right:DESTINATION Left:SOURCE

Example of Setting Screen

**Z : SET PANEL STATUS (BKS-R1607/R1608/R3204/R3205/R3209/R3210)**  
**<MONITOR MENU>**

**Purpose**

Set the various modes of the remote control unit. Number of sources and destinations that can be controlled from the remote control unit, can be expanded by connecting multiple mother and daughter panels. Setting the mother and daughter panels are also performed using this menu. (Ten mother panels can be registered at the maximum.)

The setting contents are as follows.

**DISPLAY MODE**

- STATUS= Displays the status of the primary station crosspoint table.
- PROMPT= The pressed buttons lit immediately.

**PROTECT MODE**

- ON AIR= Execute switching from the panel even during the protect mode.
- NORMAL= Switching is not possible during the protect mode.

**PHANTOM PROTECT**

- PART PROT= Execute switching on the phantom on which protect is not set.
- FULL PROT= Switching is not executed on all phantoms when any of the phantom is set to PROTECT ON.
- BUTTON LINK= Switching is not executed on all phantoms when the PROTECT button on the panel is set to ON.

**PANEL MODE\*3**

- STAND ALONE= Stand alone panel
- MOTHER= Mother panel
- DAUGHTER= Daughter panel

**PANEL LAYOUT\*1**

- TYPE + NUM.= Selecting X-Y
- DIRECT= Selecting direct

**LEVEL MODE\*1**

- SINGLE= Selecting a single level
- MULTI= Selecting multiple levels

**DEST SELECTION\*2**

- DISABLE= The destination change from panel is disabled.
- ENABLE= The destination change from panel is enabled.

\*1: Applicable to BKS-R3210 only.

\*2: Applicable to BKS-R1607 only.

\*3: When monitor S-BUS is used, select STAND ALONE= Stand alone machine at all times since mother-daughter setting is not necessary.

Setting Procedure

- 1. Select menu item [Z].
- 2. The cursor appears at "DISPLAY MODE=1."  
Move the cursor to the desired mode. (Use the keys , ,.) Press  to enter the input mode.
- 3. Input the number to be selected using the numerical keys.  
Press  to set the input number. The cursor moves to the setting item.  
When you want to modify the default value, press  without inputting any number.

MONITOR SYSTEM SETUP MENU      BKS-R1607 V1.00      STATION NUMBER 7

SET PANEL STATUS

DISPLAY MODE    = 1      1:STATUS      2:PROMPT

PROTECT MODE    = 2      1:ON AIR      2:NORMAL

PHANTOM PROTECT = 1      1:PART PROT    2:FULL PROT    3:BUTTON LINK

PANEL MODE       = 1      1:STAND ALONE 2:MOTHER    3:DAUGHTER

PANEL LAYOUT    = \*      1:TYPE + NUM. 2:DIRECT    \*:UNRELATED

LEVEL MODE       = \*      1:SINGLE       2:MULTI       \*:UNRELATED

DEST SELECTION   = 1      1:DISABLE      2:ENABLE      \*:UNRELATED

BLOCK & MOTHER STATION LIST

BLOCK 1 = ..... | BLOCK 6 = .....

BLOCK 2 = ..... | BLOCK 7 = .....

BLOCK 3 = ..... | BLOCK 8 = .....

BLOCK 4 = ..... | BLOCK 9 = .....

BLOCK 5 = ..... | BLOCK10 = .....

Ctrl-E:MENU   Ctrl-D:RETURN

Example of Setting Screen

Note

Checksum can be displayed from version V1.10 of the BKS series.  
Use checksum to check if the program data is correct, in addition to the version number indication. (The PGM CHECKSUM is mainly used.)  
The following three types of checksum are available.

BOOT CHECKSUM=D039

Checksum of the program area that is used for starting up the ROM.

PGM CHECKSUM=630F

Check of the area in which the actual programs are stored.

ROM CHECKSUM=FF68

Checksum of the entire ROM.

MONITOR SYSTEM SETUP MENU      BKS-R3210 V1.10      STATION NUMBER 6

SET PANEL STATUS

DISPLAY MODE    = 1      1:STATUS      2:PROMPT

PROTECT MODE    = 2      1:ON AIR      2:NORMAL

PHANTOM PROTECT = 1      1:PART PROT    2:FULL PROT    3:BUTTON LINK

PANEL MODE       = 1      1:STAND ALONE 2:MOTHER    3:DAUGHTER

PANEL LAYOUT    = 2      1:TYPE + NUM. 2:DIRECT    \*:UNRELATED

LEVEL MODE       = 1      1:SINGLE       2:MULTI       \*:UNRELATED

DEST SELECTION   = \*      1:DISABLE      2:ENABLE      \*:UNRELATED

BLOCK & MOTHER STATION LIST

BLOCK 1 = ..... | BLOCK 6 = .....

BLOCK 2 = ..... | BLOCK 7 = .....

BLOCK 3 = ..... | BLOCK 8 = .....

BLOCK 4 = ..... | BLOCK 9 = .....

BLOCK 5 = ..... | BLOCK10 = .....

BOOT CHECKSUM=D039   PGM CHECKSUM=630F   ROM CHECKSUM=FF68

Ctrl-E:MENU   Ctrl-D:RETURN

Example of Setting Screen

## 5-5. Backup of Setting Data

The data set using the control terminal will be stored in the RAM on the CPU board. It is however recommended that the setting data be backed up just in case the data is damaged or lost.

Data can be backed up easily by using the Sony routing switcher system control software BZR-1000 (run with a IBM PC/AT or compatible machine) or BZR-10.

## 5-6. When Data is Lost

---

### DVS-V3232B/V6464B

If the LED (D7) on the CPU board is not lit even if the error No. indicator shows "00" when operations are being checked, it means that all the data set have been lost.

The first thing to do is to check the setting of COR1 on the CPU board.

OFF : Set to ON position.

ON : The lithium battery (BT1) may be defective.

Measure voltage across BT1. If it is 2V or less, replace it with the new one.

Consult with your Sony Sales Representative for replacement of battery.

Next, initialize the unit as following procedures.

1. Set the COR1 on the CPU-149 board to ON.
2. Set the test switch (S3) to "D" and press the reset switch (S5).
3. Set the test switch (S3) to "0" and press the reset switch (S5).
4. Call the menu screen on the control terminal and execute the menu item [T : SET CLOCK].

---

### BKPF-R70

If the LED (D2) on the CPU board is not lit even if the error No. indicator shows "00" when operations are being checked, it means that all the data set have been lost.

The lithium battery (BT1) may be defective.

Measure voltage across BT1. If it is 2V or less, replace it with the new one (CR-2025).

Consult with your Sony Sales Representative for replacement of battery.

---

### HDS-V3232

If the LED (D13) on the CPU board is not lit even if the error No. indicator shows "00" when operations are being checked, it means that all the data set have been lost.

The first thing to do is to check the setting of the CN5 on the CPU board.

OFF : Set to ON position.

ON : The lithium battery (BT1) may be defective.

Measure voltage across BT1. If it is 2V or less, replace it with the new one.

Consult with your Sony Sales Representative for replacement of battery.

Next, initialize the unit as following procedures.

1. Set the COR1 on the CPU-251 board to ON.
2. Set the test switch (S2) to "D" and press the reset switch (S8).
3. Set the test switch (S2) to "0" and press the reset switch (S8).
4. Call the menu screen on the control terminal and execute the menu item [T : SET CLOCK].

## 5-7. Initialization of Table Data

There are five ways of initializing the table data. Note that the way to be used depends on which item is initialized.

### 5-7-1. Initializing Procedure and Corresponding Items

#### DVS-V3232B/V6464B :

	Initializing Procedure	Corresponding Menu Items
1	1. Set the test switch (S3) on the CPU-149 board to "D". 2. Press the reset switch (S5).	All items of the primary and secondary stations.
2	1. Set the test switch (S3) on the CPU-149 board to "C". 2. Press the reset switch (S5).	[W : SYSTEM STATUS LOG]
3	Select the menu item [K : RESET TO DEFAULT TABLE] of the primary station and press [Y].	All items of the primary station excluding the following 4 items. • [H : SET GLOBAL PHANTOM] • [N : SET DESCRIPTION NAME GROUP] • [O : SET TIE LINES] • [W : SYSTEM STATUS LOG]
4	Select the menu item [K : reset To default table] of the secondary station and press [Y].	All items of the secondary station excluding the crosspoint data.
5	Select the menu item [U : SELECT REMOTE PROTOCOL] of the secondary station and press [F2] (DEFAULT).	[U : SELECT REMOTE PROTOCOL]

#### BKPF-R70 :

	Initializing Procedure	Corresponding Menu Items
1	1. Set the test switch (S5) on the CPU-256 board to "D". 2. Press the reset switch (S1).	All items of the primary and secondary stations.
2	1. Set the test switch (S5) on the CPU-256 board to "C". 2. Press the reset switch (S1).	[W : SYSTEM STATUS LOG]
3	Select the menu item [K : RESET TO DEFAULT TABLE] of the primary station and press [Y].	All items of the primary station excluding the following 4 items. • [H : SET GLOBAL PHANTOM] • [N : SET DESCRIPTION NAME GROUP] • [O : SET TIE LINES] • [W : SYSTEM STATUS LOG]
4	Select the menu item [K : reset To default table] of the secondary station and press [Y].	All items of the secondary station excluding the crosspoint data.
5	Select the menu item [U : SELECT REMOTE PROTOCOL] of the secondary station and press [F2] (DEFAULT).	[U : SELECT REMOTE PROTOCOL]

**HDS-V3232 :**

Initializing Procedure		Corresponding Menu Items
1	1. Set the test switch (S2) on the CPU-251 board to "D". 2. Press the reset switch (S8).	All items of the primary and secondary stations.
2	1. Set the test switch (S2) on the CPU-251 board to "C". 2. Press the reset switch (S8).	[W : SYSTEM STATUS LOG]
3	Select the menu item [K : RESET TO DEFAULT TABLE] of the primary station and press [Y].	All items of the primary station excluding the following 4 items. • [H : SET GLOBAL PHANTOM] • [N : SET DESCRIPTION NAME GROUP] • [O : SET TIE LINES] • [W : SYSTEM STATUS LOG]
4	Select the menu item [K : reset To default table] of the secondary station and press [Y].	All items of the secondary station excluding the crosspoint data.
5	Select the menu item [U : SELECT REMOTE PROTOCOL] of the secondary station and press [F2] (DEFAULT).	[U : SELECT REMOTE PROTOCOL]

**Note**

The primary station of HDS-V3232 does not have the menu item[S].

The secondary station of the menu item [Z] of [SWITCHING FIELD] only.

**5-7-2. Default Values Initialization**

	Item	Default Value
Primary station	[B : SET SOURCE/DEST TYPE]	TYPE : 0=IN, 1=OUT, 2-F=None NAME : IN001-IN512, OUT001-OUT512
	[E : SET LEVEL TABLE]	All levels of all destination is ENABLE Level name : 1, 2, 3,...7, 8
	[F : SET ACTIVE UNIT NUMBER]	DVS-V3232B : STATION 2-33 ENABLE DVS-V6464B : STATION 2-65 ENABLE
	[H : SET GLOBAL PHANTOM]	Not set
	[J : NAME STYLE]	Type + Num ("Type + Number" name mode)
	[L : SET PHYSICAL ASSIGNMENT]	Physical location number=Virtual location number
	[M : SET INHIBIT TABLE] [N : SET DESCRIPTION NAME GROUP] [O : SET TIE LINES] [P : CHANGE PASSWORD]	Not set
	[S : SELECT INDICATION COLOR]	OFF
	[U : SELECT CONTROL MODE]	All channels : DIRECT
	[V : SELECT WARNING DISPLAY]	OFF
	[W : SYSTEM STATUS LOG]	NO LOG
	[Z : SET UNIT DETECTABLE]	All STATION : OFF
Secondary station	[A : SET UNIT LOCATION]	No OFFSET
	[U : SELECT REMOTE PROTOCOL]	The input /output number is 1:1.
	[Z : SELECT SDI FORMAT]	4:2:2, SWITCHING FIELD=FIELD
	Crosspoint data	The input/output number is 1:1.



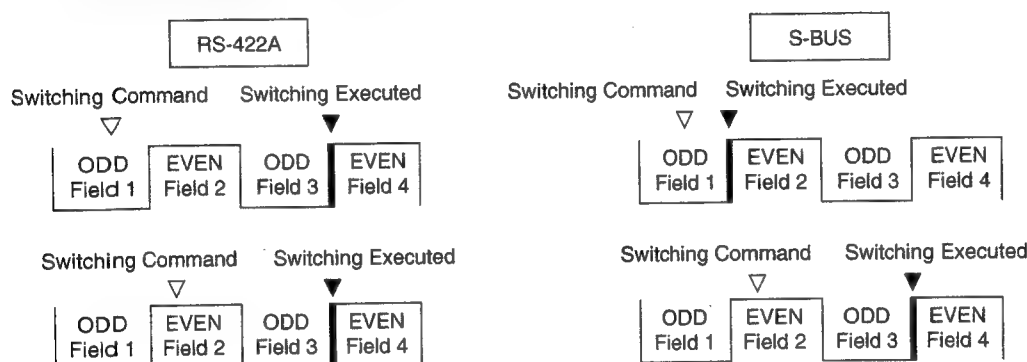
## 5-8. Signal Switching Timing

For DVS-V3232B/V6464B and HDS-V3232, a SWITCHING FIELD which switch signals from the control terminal can be set. The SWITCHING FIELD are set using menu item “Z” of the secondary station and any SWITCHING FIELD mode (ODD, EVEN, FIELD, ASYNC) can be selected.

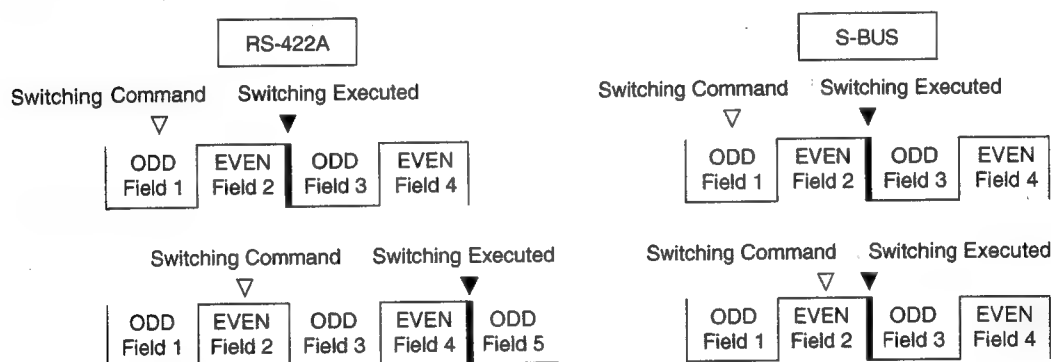
The signal switching timing depends on whether it is controlled by RS-422A or the S-BUS.

The following shows the timing charts of RS-422A and S-BUS for each SWITCHING FIELD mode.

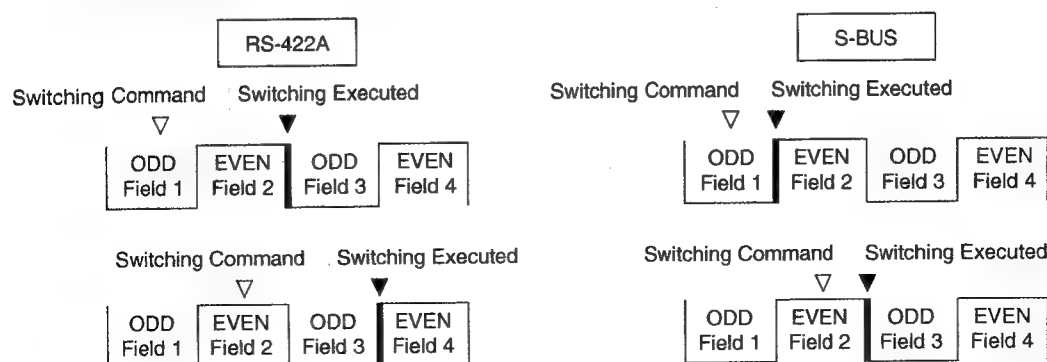
### • When SWITCHING FIELD “EVEN” is set



### • When SWITCHING FIELD “ODD” is set



### • When SWITCHING FIELD “FIELD” is set



### • When SWITCHING FIELD “ASYNC” is set

The signals will be switched immediately after the switching command is received regardless of the control method and protocol used.



## Section 6

### Confirmation of function

#### 6-1. Outline

After the hardware and software have been set up, it is necessary to check if the system is working properly before starting the operation.

Each routing switcher is equipped with the self-diagnosis function to check the system connection and status of each unit. As soon as the power of the unit is supplied or the system is reset, this function begins operations which check internal conditions and connections automatically. When a fault is detected, this is immediately displayed via the following four methods.

1. Status indicator
2. System status screen (\*)
3. Error No. indicator
4. LEDs on the boards

Moreover, the test mode and ISR function are available to find out the detail of error and cause.

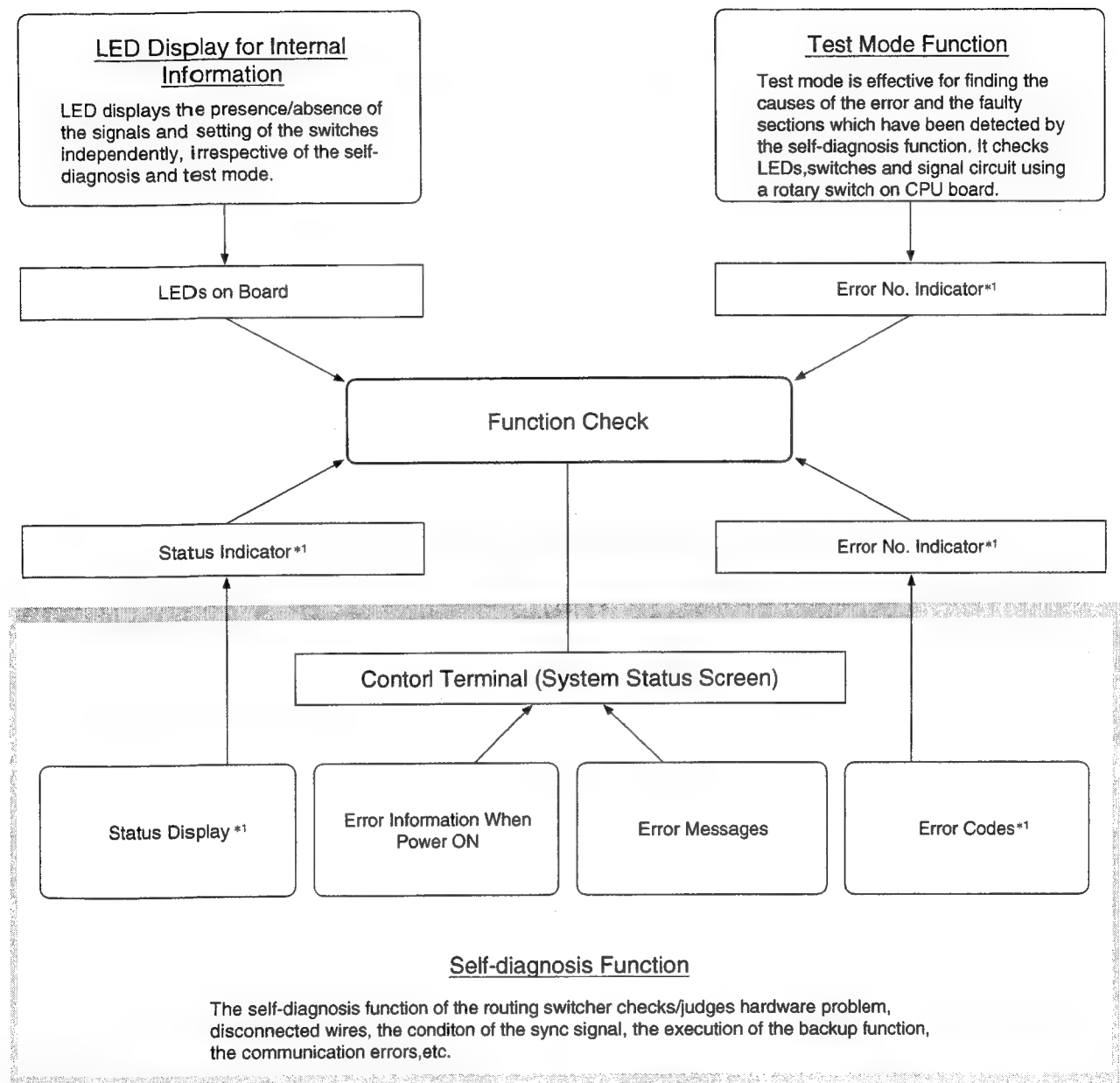
This section outlines the checks performed when the system is started up, and describes error messages displayed on [2. System status screen] in detail.

For details of [1. Status indicator], [3. Error No. indicator] and ISR function, refer to the operation manual or maintenance manual provided with the unit. For [4. LEDs on the boards] and [Test mode], refer to the maintenance manual.

\* : The error messages displayed in [2. System Status Screen] are valid only when the control terminal is connected to the primary station in the S-BUS control system.

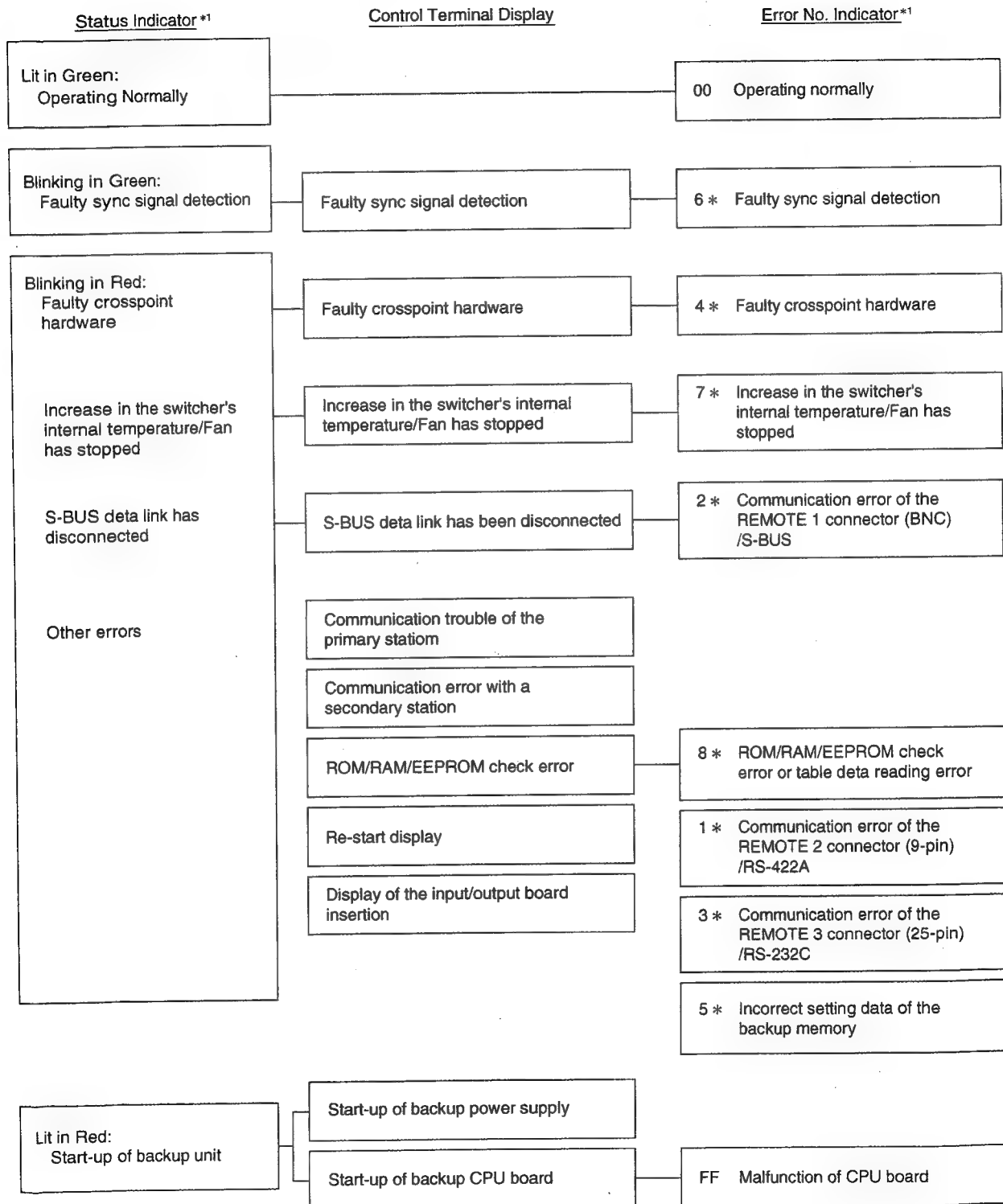
6-2. Function Check Format

The contents of each function and the structure of the error displays are as follows.



\*1 : HDS-V3232 does not have run diagnostics check on Status indicator and Error No. indicator.

### 6-3. How the Self-Diagnosis Items are Related



\*1 : HDS-V3232 does not have run diagnostics check on Status indicator and Error No. indicator.

## 6-4. Diagnosis Items for Each Model

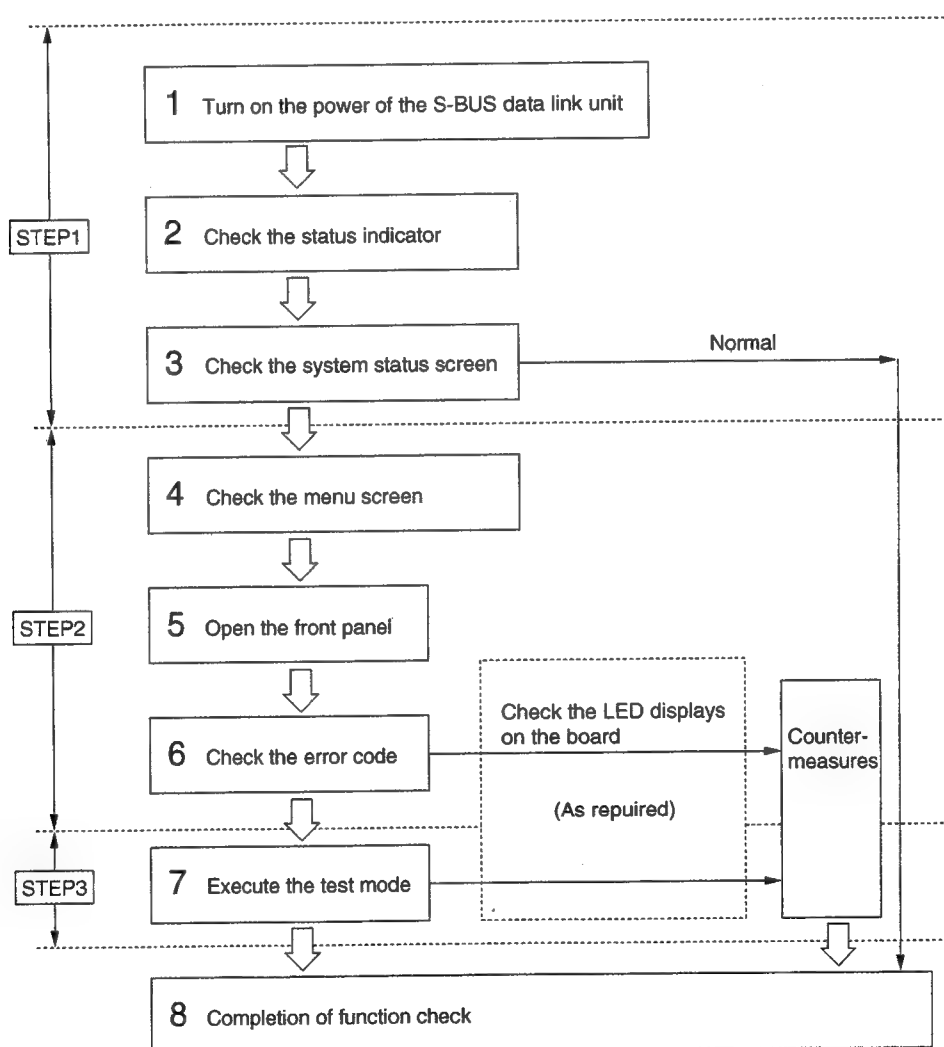
Self-diagnosis Items	Error Display		Model				
	*1Status Indicator	Status display	*1Error No. Indicator	DVS-V1616	DVS-V3232B DVS-V6464B HDS-V3232	DVS-A3232	DVS-R1616 DVS-TC3232 BVS-V323 BVS-A3232
Checking normal operations	○	—	○	○	○	○	○
Detecting sync signals	○	○	○	○	○	○	○
Detecting the sync signals of the timing generator	—	—	○	—	—	○	—
Sync signal lock function of the timing generator	—	—	○	—	—	○	—
OK/NG of crosspoint hardware	○	○	○	○	○	○	○
Unit's internal temperature/ Fan's driving condition	○	○	○	○	○	○	○
Detecting disconnection in the S-BUS data link	○	○	○	○	○	○	○
Communicating condition with Secondary stations	—	○	—	—	○	—	—
ROM/RAM/EEPROM check	—	○	○	○	○	○	○
Re-start display	—	○	—	○	○	○	○
Display of input/output board insertion	—	○	—	—	○*2	○	○
Display of input/output board no-insertion	—	○	—	○	○*2	○	○
Communicating condition of REMOTE2/RS-422A	—	—	○	○	—	○	○
Communicating condition of REMOTE3/RS-232C	—	—	○	○	—	○	○
Backup memory setting data	—	—	○	○	○	○	○
Set-up of backup power supply	○	○	—	—	○	○	○
Start-up back-up CPU board	○	○	○	—	○	○	○
CPU board operations	○	○	○	—	○	○	○
Timer stop	—	○	—	—	○	—	—

\*1 : HDS-V3232 does not have run diagnostics check on Status indicator and Error No. indicator.

\*2 : HDS-V3232 is valid only when has been not inserted the input/output board, when input/output board insertion/no-insertion will be displayed.

## 6-5. Function Check Process

After installing the hardware and software of the routing switcher system, check its functions and those of each device according to the following procedures. The process of the function check consists of three steps. The checks in step 2 and onward will be performed only when errors have been detected in step 1. If not, the checking process ends there. When errors have been displayed in step 1, except the cases that causes are found with the display contents, it is necessary to find out the faulty sections and causes by performing the checks from step 2. Countermeasures and the methods of fixing the errors are described in detail in the operation manuals and maintenance manuals provided. For the counter-measures and remedies, refer to the operation manual or the maintenance manual supplied with the unit.



## 6-6. Function Check with Control Terminal

There are two types of display modes for operation check from control terminal, which can be selected depending upon the purpose. The first type of display mode is provided by the system status display and the other is provided by the “W” menu on the menu display.

The system status display shows result of self diagnostics that is performed automatically by the primary station when the main power of the system is turned on. It also shows error messages that are issued by the respective stations on the S-BUS data link in real time, enabling to use the system status display as the monitor of system operation during system run.

To check the old system status, call the menu item [W: SYSTEM STATUS LOG].

This menu takes out only the system status from the memory, and displays error messages, corresponding station and time of occurrence.

### Note

As the control terminal constantly checks the errors of the system, and is capable of recording/displaying these, it is extremely effective for monitoring the operations of the system. Therefore, it is recommended to connect this control terminal after completing initial settings.

### 6-6-1. System status screen after power on

When the power of the primary station is turned on, the results of the self-diagnosis of the primary station and the ROM checksum value, will be displayed as shown in the figure below.

If the result of the self-diagnosis is normal, “OK” will be displayed for this item. If errors have been detected, the corresponding item will be the reversal characters.

SONY Digital Routing System DVS-V6464B V2.10		
ITEM		
①	ROM CHECK SUM	8A65
②	RAM READ AND WRITE	OK
③	REFERENCE SIGNAL	OK
④	S-BUS LINK TERMINATE	OK
⑤	REAL TIME CLOCK	
STARTED		
1993.02.03-22.15 STARTED BY DVS-V6464B Ver2.10 IN STATION 1		
1993.02.03-22.15 S-BUS LINK DISCONNECTED TO CHANNEL B		
1993.02.03-22.15 MISSING REFERENCE SIGNAL IN STATION 1		
1993.02.03-22.15 POWER SUPPLY UNIT II DOWN IN STATION 1		

Example of the System Status Screen After Power On

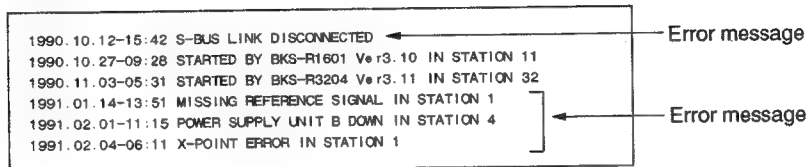
#### Display Contents:

- ① ROM checksum value on the CPU board of the primary station.
- ② Condition of the reading/writing operations of the RAM in the primary station.
- ③ The result of detecting the reference signal in the primary station.
- ④ Presence of the 75  $\Omega$  termination in the S-BUS data link.
- ⑤ Oscillation of the real time clock IC.



### 6-6-2. System status screen during the system operation

When a message is output to the S-BUS data link, the system status screen will display this message with the date and time of occurrence. When an error occurs during the operation of the system, the error message will be displayed.



Example of System Status Screen During System Operation

### 6-6-3. Menu item [W: SYSTEM STATUS LOG]

On the other hand, the menu item [W: SYSTEM STATUS LOG] can be used to call all the error information stored in the RAM of the primary station, such as the content and time of errors in each station and on the S-BUS circuit.

#### Operating procedure:

1. Turn on the power supply of the primary station to automatically start up the system status screen.
2. Press **Ctrl** - **X** to display the menu screen.  
The password will be requested if it has been set. Input the password using the numerical and alpha-bet keys, and press **Return** or **Enter**.
3. Select the menu item **W**.
4. "-- more --" will be displayed at the bottom of the screen if all error contents cannot be displayed on a screen.  
Press **SPACE** to display the next error content. "-- end --" will be displayed when all error contents have been displayed.
5. Press **Ctrl** - **E** to return to the menu screen.
6. Press **Ctrl** - **X** to return to the system status screen.

#### 6-6-4. Contents and countermeasures of the error messages

The control terminal will display eleven types of error messages according to the error content. However, depending on the model, some are not used because of no detection, or some part of the message may differ. For details of the messages and their countermeasures, refer to operation manuals provided with each model.

Standard error messages and their countermeasures are as follows.

X-POINT ERROR IN STATION \*\*\*

**Content :** Faulty crosspoint hardware  
As a result of comparing the presence/absence of the crosspoint signal in the station being displayed, this message will be displayed if the input signal was found to be present without the output signal, and vice versa, or if the input/output board has not been inserted correctly.

**Countermeasure :** The crosspoint of station \*\*\* is faulty. Check the input/output board has been properly installed.

TEMPERATURE RISE OR FAN STOP IN STATION \*\*\*

**Content :** This message is displayed when the temperature inside of the station being displayed has risen, or when the fan has stopped.

**Countermeasure :** Promptly turn off the power supply of station \*\*\*, and check for short-circuits, power leakage, faults of the mechanical parts surrounding the fan, etc.

MISSING REFERENCE SIGNAL IN STATION \*\*\*

**Content :** This message is displayed when the SYNC/ASYNC select switch on the CPU board of the switcher has been set to the sync switching mode (SYNC), and the reference video signal has not been input to the REF IN connector.

**Countermeasure :** Connect the sync signal to the REF IN connector of station \*\*\*.

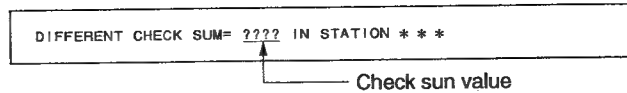
#### Note

Set the SYNC/ASYNC select switch to "ASYNC" if the reference signal is not present. When the reference signal is not input in the sync switching mode (SYNC), the crosspoint is switched automatically as the async switching mode (ASYNC).

CHANGED OVER TO BACKUP POWER SUPPLY IN STATION \*\*\*

**Content :** This message is displayed when the power supply output during operations has dropped and it is changed over to the backup power supply.

**Countermeasure :** Remove the faulty power supply of station \*\*\*, and repair or replace it with a new one.



**Content :** This message is displayed when an error has been detected as the result of ROM checksum and RAM writing tests performed after resetting the unit.

**Countermeasure :** Replace the corresponding ROM.

**Note**

This error message will be displayed even after the ROM has been replaced. This is normal. Execute the menu item [J: RECALL MAIN TABLE] from the control terminal, and reset the corresponding unit once again for the unit to begin operating normally.



**Content :** This message is displayed when the S-BUS data link has been disconnected somewhere.

**Countermeasure :** Check the connections between the S-BUS line and each station, and check that unused S-BUS ports or the ends of S-BUS lines have been terminated with 75 Ω. One method to search for the disconnected sections is using the menu item [R: CALL SECONDARY STATION] and checking for responses.

**Note**

Be sure to terminate unused S-BUS ports with 75 Ω. When a disconnection has been detected, the primary station automatically performs 75 Ω termination and restarts communication with the stations just before the disconnection. In this case, some stations may not be able to communicate even though they are connected.



**Content :** This message is displayed when an error has occurred in the CPU board during operations, and it is changed over to the backup CPU board.

**Countermeasure :** Remove the main CPU board, and repair or replace it with a new one.



**Content :** This message is displayed when the switcher is restarted due to instantaneous power failure, etc., or when the power supply is turned ON.

#### 6-6. Function Check with Control Terminal

STATION \*\*\* FAILURE (DISCONNECTED OR POWER DOWN)

Content : This message is displayed when communication with the station set at the menu item [F] is stopped.

Countermeasure : Check the status indicator of station \* \* \*, and perform the adjustment corresponding to the symptom.

VALID INPUT OR OUTPUT BOARD IN STATION \*\*\*

Content : This message is displayed when the input/output board has been inserted to station \* \* \*.

INVALID INPUT OR OUTPUT BOARD IN STATION \*\*\*

Content : This message is displayed when the input/output board has been removed from \* \* \*.

## Section 7

### Change Information on DVS-128/HDS-X3000 Series and DVS-V3232M/V6464M

#### 7-1. Outline (DVS-128/HDS-X3000 Series)

The S-BUS protocol is extended of its virtual matrix size from 512 to 1024.  
At the same time the following functions are changed.

- Number of SOURCE/DEST TYPEs is extended from 16 to 32.
- Selection of either  $1024 \times 1024 \times 8$  level or  $1024 \times 512 \times 16$  level is added.
- Number of the GLOBAL PHANTOM is reduced from 4093 to 2800.
- The multi source assignment function is added.
- Number of DESCRIPTION NAME is extended from 1024 to 2048.
- Number of the Tie Line signals is increased from 4 to 255.

In the following description, the product that supports the virtual matrix size 512 is called the S-BUS P1 type, and the product that supports the virtual matrix size 1024 is called the S-BUS P2 type.

The S-P2 has the higher compatibility with the S-P1 but has the several limitations.

The S-P2 is realized by extending the type number of the terminal name from 16 to 32, and by changing the data structure of the terminal names. The 16 types of the terminal number data that are used in the S-P1, do not have compatibility with the 32 types of terminal number data that are used in the S-P2. Therefore, the S-P2 has two types of data i.e., both the 16 type data and the 32 type data for each terminal of terminal number 1 to 512. The 16 type data needs to be used for the terminal numbers of 1 to 512 when the S-P1 UMD and the remote control panel are used in the system. The 32 type data needs to be used for the terminal numbers of 513 to 1024.

When all of the UMD and the remote control panel within the system is of the S-P2 type, the terminal numbers of 1 to 512 must be set to the 32 type data.

When use of the remote control panels of the S-P1 and S-P2 types are mixed, use of the S-P1 remote control panel is limited within the range of terminal numbers from 1 to 512. In such a case, the S-P2 remote control panel can handle the 32 type data with the terminal numbers of 513 to 1024.

**Note**

The menu screen shown below is based on the DVS-128.

**Initial screen (DVS-128/HDS-X3000 Series)**

When the **Ctrl** – **X** key is pressed after the main power is turned on, the following display appears.

```

SONY ROUTING SYSTEM SETUP MENU      DVS-128  V1.00  STATION NUMBER 1

      MODIFICATION COMMAND

A: DISPLAY CONTROL AREA              B: SET SOURCE/DEST TYPE
C: SET DESTINATION NAME              D: SET SOURCE NAME
E: SET LEVEL TABLE                  F: SET ACTIVE UNIT NUMBER
G: UPDATE BACKUP CONTROLLER          H: SET GLOBAL PHANTOM
J: NAME STYLE (Type + Num)           L: SET PHYSICAL ASSIGNMENT
M: SET INHIBIT TABLE                N: SET DESCRIPTION NAME GROUP
O: SET TIE LINES                     Q: CHANGE CROSSPOINT
R: CALL SECONDARY STATION             S: SET SOURCE ASSIGNMENT

      MAINTENANCE COMMAND

P: CHANGE PASSWORD                   T: SET CLOCK
U: SELECT CONTROL MODE               W: SYSTEM STATUS LOG
X: DISPLAY S-BUS COMMUNICATION       Z: SET UNIT DETECTABLE

                                   Ctrl-X/B:QUIT SETUP MENU

```

Example of Initial Screen

**Changed item**

- [K: RESET TO DEFAULT TABLE] is deleted from the primary station screen and is moved to the secondary station screen.

When [K: RESET TO DEFAULT TABLE] is executed on the secondary station screen, the partial initialization is executed in the S-P1, but is changed so that all data including the works is reset to the default data when shipped from the factory.

- [S: SET SOURCE ASSIGNMENT] is newly added.
- The **Ctrl** – **B** key is added as the key input to return to the initial menu (the screen when the main power is turned on.) The **Ctrl** – **B** key has the same function as the **Ctrl** – **X**.

## A : DISPLAY CONTROL AREA (DVS-128/HDS-X3000 Series)

### Purpose

This menu displays the control size as the primary station.

DISPLAY CONTROL AREA DVS-128 V1.00 STATION NUMBER 1

SOURCE No 0001-1024 DESTINATION No 0001-1024 LEVEL 1-8

Ctrl-E: RETURN TO MENU

Example of Display Screen

When LEVEL: 1 to 16 on the [E: SET LEVEL TABLE] screen is set to 1, the message [SOURCE No. 0001-1024 DESTINATION No. 0001-0512 LEVEL 1-16] appears. There are no input items or set items on this screen.

## B : SET SOURCE/DEST TYPE (DVS-128/HDS-X3000 Series)

### Purpose

This menu is used to set the type name of the source destination and global phantom table.

The menu makes the management of source/destination easier.

The alphanumeric characters of 4 characters or less can be used. Either 16 type data or the 32 type data can be selected for the terminal numbers of 1 to 512.

SOURCE/DEST/PHANTOM TYPE DVS-128 V1.00 STATION NUMBER 1

TYPE: 32

0=IN	1=OUT	2=...	3=...	4=...	5=...	6=...	7=...
8=...	9=...	A=...	B=...	C=...	D=...	E=...	F=...
G=...	H=...	I=...	J=...	K=...	L=...	M=...	N=...
O=...	P=...	Q=...	R=...	S=...	T=...	U=...	V=...

F1: TYPE Ctrl-E: RETURN TO MENU

Example of Setting Screen

- Every pressing of **F1:TYPE** triggers between TYPE: 16 and TYPE: 32. Either one of the data structures of the terminal name to be handed by the S-P1, is selected.
- When **F1** is pressed, the message [Do you change the type number? Y or N] appears. When either **Y** or **N** is pressed, change the setting of the type number.

The terminal name from 1 to 512

- **TYPE : 16** The names up to 16 types can be used. When the S-P1 type remote control panel or the UMD is used in the system, select the TYPE 16.
- **TYPE : 32** The names up to 32 types can be used. When the S-P1 type remote control panel or the UMD is used in the system, the correct display or correct operation cannot be performed.

The terminal names of No. 513 to 1024 are fixed to type 32 without affected by this setting.

**E : SET LEVEL TABLE**  
(DVS-128/HDS-X3000 Series)

**Purpose**

The level name can be set, and the valid level for each output terminal can be set.

Number of levels of either 8 or 16 can also be selected.

LEVEL TABLE											
DVS-128 V1.00 STATION NUMBER 1											
LEVEL: 1-16											
1=VIT 2=A1 3=A2 4=TC 5=REM 6=B32 7=... 8=...											
9=... 10=... 11=... 12=... 13=... 14=... 15=... 16=...											
No. out	VIT	A1	A2	TC	REM	B32	7=...	8=...	9=...	10=...	11=...
0001 OUT001	VIT	A1	...	...	...	...	...	...	...	...	...
0002 OUT002	VIT	A1	...	...	...	...	...	...	...	...	...
0003 OUT003	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0004 OUT004	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0005 OUT005	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0006 OUT006	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0007 OUT007	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0008 OUT008	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0009 OUT009	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0010 OUT010	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0011 OUT011	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0012 OUT012	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0013 OUT013	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0014 OUT014	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0015 OUT015	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0016 OUT016	VIT	A1	A2	TC	REM	B32	...	...	...	...	...
0017 OUT017	VIT	A1	A2	TC	REM	B32	...	...	...	...	...

F1:SEARCH F2:JUMP F3:LEVEL Ctrl-E:RETURN TO MENU

**Example of Setting Screen**

Every pressing of **F3:LEVEL** toggles between the LEVEL: 1-8 display and the LEVEL: 1-16 display on the 2nd line.

The LEVEL 9-16 is realized by switching the Destination to which 512 is added, at the same time.

When the system is used with the LEVEL 1-16, the remote control panel that supports the LEVEL 1-16 becomes necessary.

**O : SET TIE LINES (DVS-128/HDS-X3000 Series)**

**Purpose**

Change/addition/deletion of the TIE LINE data are performed here.

SET TIE LINES									
DVS-128 V1.00 STATION NUMBER 1									
---PATHS 1---									
SOURCE:	SOURCE No.	DESTINATION No.	ROUTE:	SOURCE No.	DESTINATION No.				
L1	0001 - 0080	0001 - 0004	L2	0081 - 0082	0080 - 0086				
			DESTINATION:	SOURCE No.	DESTINATION No.				
			L1	0083 - 0089	0100 - 0130				
---PATHS 2---									
SOURCE:	SOURCE No.	DESTINATION No.	ROUTE:	SOURCE No.	DESTINATION No.				
L2	0001 - 0040	0005 - 0006	L:	...	...				
			DESTINATION:	SOURCE No.	DESTINATION No.				
			L1	0200 - 0201	0300 - 0400				
---PATHS 3---									
SOURCE:	SOURCE No.	DESTINATION No.	ROUTE:	SOURCE No.	DESTINATION No.				
L:	...	...	L:	...	...				
			DESTINATION:	SOURCE No.	DESTINATION No.				
			L:	...	...				
---PATHS 4---									
SOURCE:	SOURCE No.	DESTINATION No.	ROUTE:	SOURCE No.	DESTINATION No.				
L:	...	...	L:	...	...				
			DESTINATION:	SOURCE No.	DESTINATION No.				
			L:	...	...				
F1:PgUp F2:PgDn Ctrl-E:RETURN TO MENU									

**Example of Setting Screen**

To set the number, press **Enter** to be ready for number input. Enter a number in the range of 1 to 1024. When **Enter** is pressed again, the number is set, the range is checked and duplication of the same number with other setting is checked. Then the number is set.

If duplication of the number is found, the entered number becomes invalid and the former number remains as it is.

To delete a terminal number, press **Enter** without inputting a number. Then "..." appears and the terminal number is deleted.

Number of the signals to be set is 254 at the maximum.

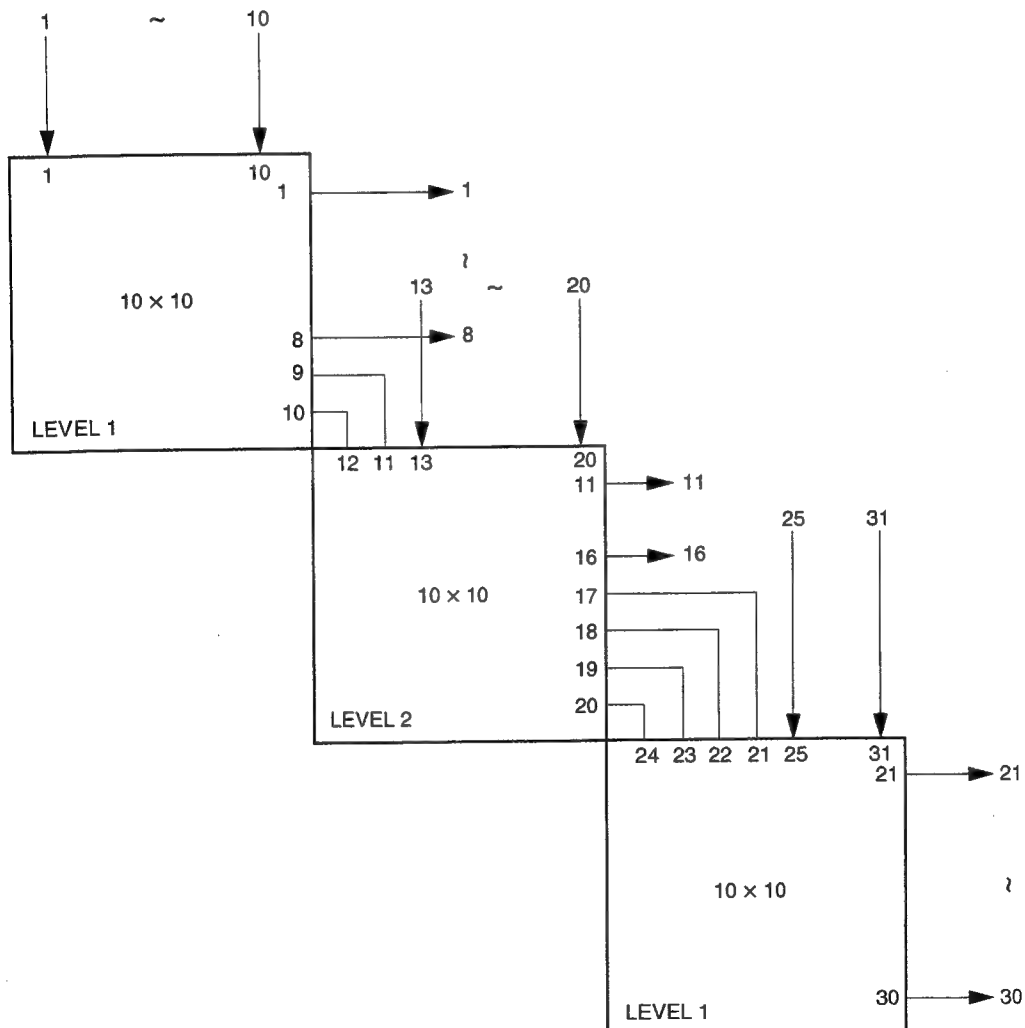
Number of the TIE LINES to be set is 16 paths at the maximum.



**(Example)**

An example in which the three matrices of  $10 \times 10$  are used and are connected by the Tie-Line, is shown. A signal of IN 1-10 and IN 13-20 can be selected from OUT 21-30 in this example.

SET TIE LINES					
DVS-128 V1.00 STATION NUMBER 1					
---PATHS 1---					
SOURCE:	SOURCE No.	DESTINATION No.	ROUTE:	SOURCE No.	DESTINATION No.
L1	0001 - 0010	0009 - 0010	L2	0011 - 0012	0017 - 0018
			DESTINATION:	SOURCE No.	DESTINATION No.
			L1	0021 - 0022	0021 - 0030
---PATHS 2---					
SOURCE:	SOURCE No.	DESTINATION No.	ROUTE:	SOURCE No.	DESTINATION No.
L2	0013 - 0020	0019 - 0020	L1	0023 - 0024	0021 - 0030
			DESTINATION:	SOURCE No.	DESTINATION No.
			L1	0023 - 0024	0021 - 0030

**Example of Setting Screen**

## S : SET SOURCE ASSIGNMENT (DVS-128/HDS-X3000 Series)

### Purpose

Change/addition/deletion of the MULTIPLE SOURCE name are performed here. When the signal name that has been set as level 1 from the remote control, is supposed to be named as TAKE, the signals whose source numbers are set here, can be selected in the level 2 and later.

SET SOURCE ASSIGNMENT								DVS-128 V1.00	STATION NUMBER 1
VID	A-A1	A-A2	A3	A4	REM	TBC	SAPS		
0001	IN001	IN001	IN001	IN001	IN001	IN001	IN001		
0002	IN002	IN002	IN002	IN002	IN002	IN002	IN002		
0003	IN003	IN002	IN002	IN002	IN002	IN003	IN003		
0004	IN004	IN002	IN002	IN002	IN002	IN004	IN004		
0005	IN005	IN005	IN005	IN005	IN005	IN005	IN005		
0006	IN006	IN006	IN006	IN006	IN006	IN006	IN006		
0007	C1	M1							
0008	C2	M1							
0009	C3	M2							
0010	C4	M3							
0011	C5	M1							
0012	IN012	IN012	IN012	IN012	IN012	IN012	IN012		
0013	IN013	IN013	IN013	IN013	IN013	IN013	IN013		
0014	IN014	IN014	IN014	IN014	IN014	IN014	IN014		
0015	IN015	IN015	IN015	IN015	IN015	IN015	IN015		
0=IN	1=OUT	2=VTR	3=ENG	4=MCR	5=TEST	6=SNL	7=SS		
8=CG	9=SAT	A=LMS	B=EDIT	C=CAM	D=GPHA	E=GPHB	F=GPHC		
G=17	H=18	I=19	J=20	K=21	L=22	M=23	N=24		
O=25	P=26	Q=27	R=28	S=29	T=30	U=31	V=32		
F1:SEARCH	F2:JUMP	F3:PgUp	F4:PgDn	Ctrl-E:RETURN TO MENU					

Example of Setting Screen

The SOURCE name of LEVEL 1 is fixed in the same way as the source name setting. The SOURCE names of the LEVEL-2 to 8 are set using this screen.

Set the name by entering the Type number first then by entering the successive three digit number. This name can be deleted using **Ctrl** - **P**. If an illegal name is set, a message [The name is not defined] appears, the original name is resumed. When a valid SOURCE name has already been input, the name is set, the correspond SOURCE number is internally saved and the cursor moves to the next position.

When "Enter" is pressed without entering name, "...." appears and the setting is deleted.

## 7-3. Changed Menu (Secondary Station Setting Items)

### N : SET PANEL TABLE (HDS-X3400)

### Purpose

This menu is used to set the switch of the BKS-R3400 (panel switch).

### Setting procedure

1. Select the menu item "N".
2. Select the desired button number using the cursor.
3. When **Enter** is pressed, the machine enters the channel number input mode. The input mode is canceled if **Enter** is pressed before inputting the channel number in step 4.
4. Input the channel number of 1 to 16 from the keyboard. The input channel is input by entering a number to the table of the SOURCE side, and the output channel is input by entering a number to the table of the DESTINATION side.
5. Press **Enter** to set the input setting.
6. Press **Ctrl** - **E** to return to the menu screen of the secondary station.

SET PANEL TABLE								HDS-X3400 V1.00	STATION NUMBER 1
SET PANEL TABLE (SOURCE)									
01 KEY=001	02 KEY=002	03 KEY=003	04 KEY=004						
05 KEY=005	06 KEY=006	07 KEY=007	08 KEY=008						
09 KEY=009	10 KEY=010	11 KEY=011	12 KEY=012						
13 KEY=013	14 KEY=014	15 KEY=015	16 KEY=016						
17 KEY=.....	18 KEY=.....	19 KEY=.....	20 KEY=.....						
21 KEY=.....	22 KEY=.....	23 KEY=.....	24 KEY=.....						
25 KEY=.....	26 KEY=.....	27 KEY=.....	28 KEY=.....						
29 KEY=.....	30 KEY=.....	31 KEY=.....	32 KEY=.....						
SET PANEL TABLE (DESTINATION)									
01 KEY=.....	02 KEY=.....	03 KEY=.....	04 KEY=.....						
05 KEY=.....	06 KEY=.....	07 KEY=.....	08 KEY=.....						
09 KEY=.....	10 KEY=.....	11 KEY=.....	12 KEY=.....						
13 KEY=.....	14 KEY=.....	15 KEY=.....	16 KEY=.....						
17 KEY=001	18 KEY=002	19 KEY=003	20 KEY=004						
21 KEY=005	22 KEY=006	23 KEY=007	24 KEY=008						
25 KEY=009	26 KEY=010	27 KEY=011	28 KEY=012						
29 KEY=013	30 KEY=014	31 KEY=015	32 KEY=016						
LED BRIGHTNESS LEVEL (1-8)								3	
F1:TABLE	F2:LED	Ctrl-E:RETURN TO MENU							

Example of Setting Screen

**Operating Function Keys**

**[F1]** : TABLE (Mode which assigns source and destination to the buttons)

This setting is valid for local input/output physical terminals of the HDS-X3400. The SOURCE and DESTINATION of other unit cannot be set from this button.

**[F2]** : LED (Mode which adjusts brightness of the button.)

1. Press **[F2]**. The cursor moves to [LED BRIGHTNESS LEVEL (1-8)] on the screen.
2. Press any key of 1 to 8 from the keyboard. Brightness of the buttons will change accordingly. (dark 1 ↔ 8 bright)

**Note**

The BKS-R3400 directly controls only the connected HDS-X3400 regardless of the setting of the primary station, that is different from other remote control units.

**V : DISPLAY UNIT STATUS (DVS-128)****Purpose**

Purpose is to display the internal status of the equipment. There are no setting on this screen.

Press **[Ctrl] - [E]** to return to the menu screen of the secondary station.

DISPLAY UNIT STATUS				DVS-128	V1.00	STATION NUMBER 1	
INPUT BOARD		MAIN	CONNECTOR	STYLE	REFERENCE		
01-32		VALID	VALID	Analog Video	A		
33-64		INVALID	INVALID	Analog Audio	B		
65-96		INVALID	INVALID	Digital Audio	B		
97-128		INVALID	INVALID	-----	-		
OUTPUT BOARD		MAIN	CONNECTOR	STYLE	REFERENCE		
01-32		VALID	VALID	Analog Video	A		
33-64		INVALID	INVALID	Analog Audio	B		
65-96		INVALID	INVALID	Digital Audio	B		
97-128		INVALID	INVALID	-----	-		
CONTROL BOARD				REFERENCE SIGNAL	A	B	
MAIN S-BUS MONITOR				SELECT FIELD	525	625	
M	V1.00	V1.00	V1.00	POWER SUPPLIES	ON	INVALID	
B	INVALID			FAN1 FAN2 FAN3			
				ROT ROT ROT			
Ctrl-E: RETURN TO MENU							

Example of Display Screen

**Description of contents on display****MAIN or CONNECTOR : VALID/INVALID**

Displays whether the board (MAIN) to be inserted from the front and the rear connector board, are inserted or not.

**STYLE : Analog Video/Analog Audio/Digital Audio**

Displays the name of the optional signals that are inserted to each option slot.

**REFERENCE : A/B**

Displays which of the two types of the reference signal, is selected.

**REFERENCE SIGNAL : 525/625**

Displays the number of lines of the detected reference signal.

**SELECT FIELD : ASYNC/ODD/EVEN/FIELD**

Displays the switching timing of matrix.

**POWER SUPPLIES : ON/INVALID**

Displays whether the power supply unit is inserted or not.

**FANx : ROT/STOP**

Displays whether the rear panel fan is rotating or not.

V : DISPLAY UNIT STATUS (HDS-X3000 Series)

Purpose

Purpose is to display the internal status of the equipment.  
There are no setting on this screen.  
Press **Ctrl** – **E** to return to the menu screen of the secondary station.

DISPLAY UNIT STATUS					HDS-X3400 V1.00		STATION NUMBER 1	
INPUT	MAIN	REV	CN 01-16	REV	P.S			
01-16	HD SDI	1.0	HD SDI	1.0	OK			
OUTPUT	MAIN	REV	CN 01-16	REV	P.S			
01-16	HD SDI	1.0	HD SDI	1.0	OK			
FRONT PANEL BKS-R3400								
CONTROL BOARD						REFERENCE SIGNAL		1125p
MAIN S-BUS						SELECT FIELD		FIELD
V1.00 V1.00						POWER SUPPLIES		ON
						FAN1 FAN2		
						ROT ROT		
Ctrl-E: RETURN TO MENU								

Example of Display Screen (HDS-X3400)

DISPLAY UNIT STATUS								HDS-X3700 V1.00		STATION NUMBER 1	
INPUT	MAIN	REV	CN01-16	REV	CN17-32	REV	P.S				
01-32	HD SDI	1.0	HD SDI	1.0	HD SDI	1.0	OK				
33-64	HD SDI	1.0	HD SDI	1.0	HD SDI	1.0	OK				
65-96	HD SDI	1.0	SD SDI	1.0	SD SDI	1.0	OK				
97-128	INVALID		INVALID		INVALID						
OUTPUT	MAIN	REV	CN01-16	REV	CN17-32	REV	P.S REF	FANA	FANB		
01-32	HD SDI	1.0	HD SDI	1.0	HD SDI	1.0	OK A	ROT	ROT		
33-64	HD SDI	1.0	HD SDI	1.0	HD SDI	1.0	OK B	ROT	ROT		
65-96	HD SDI	1.0	SD SDI	1.0	SD SDI	1.0	OK A	ROT	ROT		
97-128	INVALID		INVALID		INVALID			ROT	ROT		
CONTROL BOARD				REFERENCE SIGNAL				A	B		
MAIN S-BUS MONITOR				SELECT FIELD				1125p	625		
M V1.00 V1.00 V1.00				POWER SUPPLIES				ON	INVALID		
B INVALID											
				FAN1	FAN2	FAN3	FAN4	FAN5	FAN6		
				ROT	ROT	ROT	ROT	ROT	ROT		
Ctrl-E: RETURN TO MENU											

Example of Display Screen (HDS-X3700)

DISPLAY UNIT STATUS				HDS-X3600 V1.00		STATION NUMBER 1			
INPUT	MAIN	REV	CN01-16	REV	CN17-32	REV	P.S		
01-32	HD SDI	1.0	HD SDI	1.0	HD SDI	1.0	OK		
33-64	HD SDI	1.0	HD Opt16	1.0	HD SDI	1.0	OK		
OUTPUT	MAIN	REV	CN01-16	REV	CN17-32	REV	P.S REF	FANA	FANB
01-32	HD SDI	1.0	HD SDI	1.0	HD SDI	1.0	OK A	ROT	ROT
33-64	HD SDI	1.0	HD Opt16	1.0	HD SDI	1.0	OK B	ROT	ROT
CONTROL BOARD				REFERENCE SIGNAL		A B			
MAIN S-BUS MONITOR				SELECT FIELD		1125p 625			
M	V1.00	V1.00	V1.00	POWER SUPPLIES		FIELD ODD			
B	INVALID					ON INVALID			
				FAN1 FAN2					
				ROT ROT					
Ctrl-E: RETURN TO MENU									

Example of Display Screen (HDS-X3600)

Description of contents on display  
**MAIN or CN01-16/CN17-32:** HD SDI/SD SDI/HD Opt8/  
INVALID

Displays whether the board (MAIN) to be inserted from the front and the rear connector board (CN01-16/CN17-32), are inserted or not.

**P.S :** OK/NG

Displays the power supply status of the MAIN and two CN boards.

**REV :** REVISION of the boards

**REF :** A/B

Displays which of the two types of the reference signal is selected.

**REFERENCE SIGNAL :** 525i/625i/1125i

Displays the number of lines of the detected reference signal.

**SELECT FIELD :** ASYNC/ODD/EVEN/FIELD/(ASYNC)

Displays the switching timing of the matrix.

**POWER SUPPLIEDS :** ON/INVALID/OVERLOAD

Displays the status of the power supply unit. When OVERLOAD is displayed as this status, it means that the excess number of rear optical connectors more than the specified number are installed.

**FANA, FANB : ROT/STOP**

Displays whether the fan on the matrix board is rotating or not.

**FANn : ROT/STOP**

Displays whether the fan of the main unit (except the power supply unit) is rotating or not.

**FRONT PANEL : BKS-R3400/INVALID**

Displays whether the option switch is attached to the front of the HDS-X3400 or not.

**Note**

If the board (MAIN) to be inserted from the front is not installed, the status of the rear connector board is not displayed correctly.

**Z : SET SDI FORMAT (HDS-X3000 Series)****Purpose**

This menu is used to set the signal format for the output board of the HDS-X3000 series (whether the signal is reclocked in the HD-SDI or not) from the control terminal. This setting becomes valid when the dip switch of the RECLOCK BYPASS of the output board is turned off. When the processor unit of HDS-X3000 series has the SD-SDI output board (HKDS-X3050), the setting of the format is not required.

**Setting Procedure**

1. Select the menu item "Z".
2. Select the desired channel line using the cursor to be set. (The HDS-X3400 will be switched in every four channels, and the HDS-X3600/X3700 will be switched in every eight channels.)
3. When **[Enter]** is pressed, the setting changes ("HD SDI (RC)" ↔ "HD SDI (RC PASS)").
4. Press **[S]** (Table Set), and the content now on display is copied to the area of SDI FORMAT TABLE.

**Note**

Unless pressing **[S]** (Table Set), the data will be deleted when the power is turned off.

5. Press **[Ctrl] - [E]** to stop the display and return to the menu screen of the secondary station.

SELECT SDI FORMAT		HDS-X3400 V1.00 STATION NUMBER 1	
DESTINATION UNIT		SOURCE UNIT	
01 - 04 :	HD SDI (RC)	01 - 04 :	_____
05 - 08 :	HD SDI (RC)	05 - 08 :	_____
09 - 12 :	HD SDI (RC)	09 - 12 :	_____
13 - 16 :	HD SDI (RC)	13 - 16 :	_____
SWITCHING FIELD		FIELD	
F1:FORMAT F2:FIELD S:Table Set		Ctrl-E:RETURN TO MENU	

Example of Setting Screen (HDS-X3400)

SELECT SDI FORMAT		HDS-X3600 V1.00 STATION NUMBER 1	
DESTINATION UNIT	SOURCE UNIT	REFERENCE SELECT	
01 - 08 : HD SDI (RC)	01 - 08 : _____	01 - 32 : A	
09 - 16 : HD SDI (RC)	09 - 16 : _____		
17 - 24 : HD SDI (RC)	17 - 24 : _____		
25 - 32 : HD SDI (RC)	25 - 32 : _____		
33 - 40 : HD SDI (RC PASS)	33 - 40 : _____	33 - 64 : A	
41 - 48 : HD SDI (RC PASS)	41 - 48 : _____		
49 - 56 : HD SDI (RC PASS)	49 - 56 : _____		
57 - 64 : HD SDI (RC PASS)	57 - 64 : _____		
SWITCHING FIELD		A:FIELD B:ODD	
F1:FORMAT F2:FIELD F3:REFERE S:Table Set Ctrl-E:RETURN TO MENU			

Example of Setting Screen (HDS-X3600)

SELECT SDI FORMAT		HDS-X3700 V1.00 STATION NUMBER 1	
DESTINATION UNIT	SOURCE UNIT	REFERENCE SELECT	
01 - 08 : HD SDI (RC)	01 - 08 : _____	01 - 32 : A	
09 - 16 : HD SDI (RC)	09 - 16 : _____		
17 - 24 : HD SDI (RC)	17 - 24 : _____		
25 - 32 : HD SDI (RC)	25 - 32 : _____		
33 - 40 : HD SDI (RC PASS)	33 - 40 : _____	33 - 64 : A	
41 - 48 : HD SDI (RC PASS)	41 - 48 : _____		
49 - 56 : _____	49 - 56 : _____		
57 - 64 : _____	57 - 64 : _____		
65 - 72 : _____	65 - 72 : _____	65 - 96 : B	
73 - 80 : _____	73 - 80 : _____		
81 - 88 : _____	81 - 88 : _____		
89 - 96 : _____	89 - 96 : _____	97 - 128 : B	
97 - 104 : _____	97 - 104 : _____		
105 - 112 : _____	105 - 112 : _____		
113 - 120 : _____	113 - 120 : _____		
121 - 128 : _____	121 - 128 : _____		
SWITCHING FIELD		A:FIELD B:ODD	
F1:FORMAT F2:FIELD F3:REFERE S:Table Set Ctrl-E:RETURN TO MENU			

Example of Setting Screen (HDS-X3700)

**Operating Function Keys**

**F1** : FORMAT (Mode in which the HDS-X3400 is set in the units of the four channels and the HDS-X3600/X3700 is set in the units of the eight channels)

HD SDI (RC) : When the input signal is HD-SDI, the signal is reclocked and is output.)

HD SDI (RC PASS) : The input signal is bypassed and is output as it is.

**F2** : FIELD (Mode which sets the crosspoint switching field)

1. Press **F2**. The cursor moves to "SWITCHING FIELD" on the screen.
2. Move the cursor to ERF.A ↔ REF.B using the cursor key of the keyboard.
3. Press **Enter**. The status changes as follows.  
(ODD → EVEN → FIELD → ASYNC → ODD · · ·)

**F3** : REFERE (Mode which selects the reference of the switching timing of the crosspoint in units of the output 32 channels)

1. Press **F3**. The cursor moves to "REFERENCE SELECT" on the screen.
2. Select a channel using the cursor of the keyboard.
3. Press **Enter**. The setting changes. (A ↔ B)

**Note**

When using both the CART protocol and S-BUS in RS-422A, set REFERENCE (switching timing) to A and SWITCHING FIELD to ODD. If other setting is performed, the switching timing is sometimes not executed correctly.

In addition, the switching timing is sometimes not executed correctly if SWITCHING FIELD is set in other combinations. For more details about the signal switching timings, refer to "5-8. Signal Switching Timing".

## Z : SELECT SDI FORMAT (DVS-V3232M/DVS-V6464M)

### Purpose

This menu is used to set the format of signals fed to the input/output board of DVS-V3232M and DVS-V6464M with the control terminal.

This setting is available when the REM/LOC switch for the format on each input/output board is OFF.

### Setting Procedure

1. Select menu item "Z".
2. Select a channel line using the cursor to be set. (The channels will be switched by eight channels. Displayed signal formats that are enclosed by the round brackets as "(270 Mbps)" have been set on the board and cannot be modified with the control terminal.
3. When **[Enter]** is pressed, the setting will change ("143 Mbps" → "117 Mbps" → "270 Mbps" → "AUTO").
4. Press **[S]** (Table Set), and the content now appeared is copied to the area of SDI FORMAT TABLE.
5. Press **[Ctrl] - [E]** to stop the display and return to the menu screen of the secondary station.

SELECT SDI FORMAT		DVS-V6464M V3.00 STATION NUMBER 1	
DESTINATION UNIT		SOURCE UNIT	
01 - 08 :	270 Mbps	01 - 08 :	270 Mbps
09 - 16 :	143 Mbps	09 - 16 :	270 Mbps
17 - 24 :	270 Mbps	17 - 24 :	270 Mbps
25 - 32 :	143 Mbps	25 - 32 :	270 Mbps
33 - 40 :	360 Mbps	33 - 40 :	270 Mbps
41 - 48 :	540 Mbps	41 - 48 :	270 Mbps
49 - 56 :	( 270 Mbps )	49 - 56 :	( 270 Mbps )
57 - 64 :	AUTO	57 - 64 :	270 Mbps
SWITCHING FIELD		FIELD	
F1:FORMAT F2:FIELD S:Table Set		Ctrl-E:RETURN TO MENU	

Example of Setting Screen

### Note

Unless pressing **[S]**, the data will be deleted when the power is turned off.

### Operating Function Keys

**[F1]** : FORMAT (Mode which sets the signal format by 8-channels)

**[F2]** : FIELD (Mode which sets the crosspoint switching field)

1. Press **[F2]**. The cursor will move to "SWITCHING FIELD" in the menu.
2. Press **[Enter]**. The setting will change. (ODD → EVEN → FIELD → ASYNC → ODD...)

All switching field in the switcher are determined by this setting.

When a display "(ASYNC)" appears on the screen, it indicates that the cross-point selector field has been set in the ASYNC (asynchronous) position on the CPU-149 board (S4-1). It means that the setting cannot be changed from the control terminal.

### Note

To use RS-422A and S-BUS together, set the switching field as follows.

- ① When using the S-BUS and CART protocol together : ODD
- ② When using the S-BUS and PRODUCTION SWITCHER protocol together : FIELD

Note that the switching timing of the CART will not be accurate if the CART and PRODUCTION SWITCHERS protocols are used together.

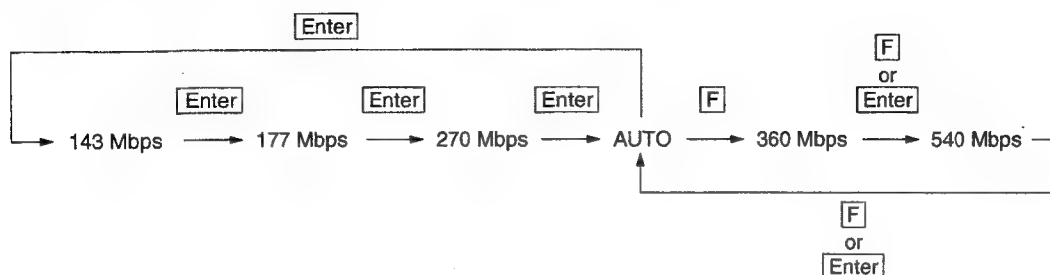
Switching timing is not guaranteed in the combination of different switching fields.

For details of the signal switching timing, refer to "5-8. Signal Switching Timing".

### 7-3. Changed Menu (Secondary Station Setting Items)

“AUTO” stands for “AUTO LOCK” mode in which the input signal format (143/177/270/360/540 Mbps) is automatically identified and the equipment runs on an appropriate signal format.

The signal format setting can be changed by pressing either **Enter** or **F**.





Comparison Table between Models

Item	S-P1			S-P2	
	BVS-V3232 <sup>(*1)</sup>	DVS-V6464B/ V6464M <sup>(*2)</sup>	BKPF-R70	DVS-128 <sup>(*3)</sup>	BKPF-R70A
Dedicated CPU for communication	—	1	2	1	2
SOFT MATRIX	—	—	64	—	128
A : DISPLAY CONTROL AREA	512 × 512	512 × 512	512 × 512	1024 × 1024	1024 × 1024
B : SET SOURCE/DEST TYPE	16	16	16	32	32
C : SET DESTINATION NAME	512	512	512	1024	1024
D : SET SOURCE NAME	512	512	512	1024	1024
E : SET LEVEL TABLE	8	8	8	16	16
F : SET ACTIVE UNIT NUMBER	—	○	○	○	○
G : UPDATE BACKUP CONTROLLER	○	○	○	○	○
H : SET GLOBAL PHANTOM	—	4095	4095	2800	2800
J : NAME STYLE(Type+Num)	—	○	○	○	○
L : SET PHYSICAL ASSIGNMENT	—	512	512	1024	1024
M : SET INHIBIT TABLE	—	512	512	1024	1024
N : SET DESCRIPTION NAME	—	1024	1024	2048	2048
O : SET TIE LINES	—	4	4	255	255
P : CHANGE PASSWORD	○	○	○	○	○
Q : CHANGE CROSSPOINT	1	8	8	8	8
R : CALL SECONDARY STATION	○	○	○	○	○
S : SET SOURCE ASSIGNMENT	—	—	—	○	○
T : SET CLOCK	○	○	○	○	○
U : SELECT CONTROL MODE	—	3	1	1	1
W : SYSTEM STATUS LOG	○	○	○	○	○
X : DISPLAY S-BUS COMMUNICATION	○	○	○	○	○
Z : SET UNIT DETECTABLE	—	○	○	○	○
A : SET UNIT LOCATION	512	512 (1024)	512	1024	1024
K : RESET TO DEFAULT TABLE	△	△	△	○	○
M : SET MONITOR FUNCTION	—	○	—	○	—

Includes the following models.

(\*1) DVS-V1616, BVS-A3232, BVS-V3232, DVS-TC3232, DVS-RS1616

(\*2) DVS-V3232B/V3232M

(\*3) HDS-X3400/X3600/X3700

The CPU performance is the relative value when the DVS-V6464B is taken as the standard value 1.

The models to which triangle mark △ is set in the RESET TO DEFAULT TABLE, the mark indicates that it is partially initialized.

The TIE LINES function of 4 and that of 255 have the different structure and different functions.



## Appendix

### Functions and Menu Items

Function	Purpose	Menu item	Station type
Standard setting	Initializing table data	K : RESET TO DEFAULT TABLE	Primary station
	Set/change password	P : CHANGE PASSWORD	
	Set time clock	T : SET CLOCK	
	Select warning display ON/OFF	V : SELECT WARNING DISPLAY	
	Set type name	B : SET SOURCE/DEST TYPE	
	Select input/output name style	J : NAME STYLE	
	Set destination name	C : SET DESTINATION NAME	
	Set source name	D : SET SOURCE NAME	
	Set description name group	N : SET DESCRIPTION NAME GROUP	
	Set level table	E : SET LEVEL TABLE	
	Set active unit number	F : SET ACTIVE UNIT NUMBER	
	Copy main CPU data to backup CPU	G : UPDATE BACKUP CONTROLLER	
	Set physical assignment	L : SET PHYSICAL ASSIGNMENT	
	Call secondary station	R : CALL SECONDARY STATION	
	Set unit location	A : SET UNIT LOCATION	Secondary station (switcher)
	Copy main CPU data to backup CPU	G : UPDATE BACKUP CONTROLLER	
	Copy table data	L : COPY TABLE DATA	
	Set panel status	Z : SET PANEL STATUS	
	Set panel table	N : SET PANEL TABLE	
	Set available destination style	O : SET AVAILABLE DESTINATION	(remote control unit)
Crosspoint disable setting function		M : SET INHIBIT TABLE	Primary station
Global phantom function		H : SET GLOBAL PHANTOM	Primary station
Local phantom function	Set phantom function	H : SET PHANTOM TABLE	Secondary station
Protect function	Set protect function	C : SET DESTINATION NAME	Primary station
Secret function	Set secret function	D : SET SOURCE NAME	Primary station
Tie line management	Set tie line system	O : SET TIE LINES	Primary station
RS-422A	Select RS-422A control mode	U : SELECT CONTROL MODE	Primary station
9-pin remote control	Call secondary station	R : CALL SECONDARY STATION	Primary station
	Select 9-pin remote protocol	U : SELECT REMOTE PROTOCOL	Secondary station

Function	Purpose	Menu item	Station type
Monitor function	Call secondary station	R : CALL SECONDARY STATION	Primary station
	Call primary station on monitor S-BUS	M : SET MONITOR FUNCTION	Secondary station
	Set active unit number	F : SET ACTIVE UNIT NUMBER	Monitor S-BUS
	Select monitor mode	M : SELECT MONITOR FUNCTION	primary station
	Call secondary station on monitor S-BUS	R : CALL SECONDARY STATION	
	Set available monitor unit	M : SET AVAILABLE MONITOR LINE	Monitor S-BUS
	Set panel table	N : SET PANEL TABLE	secondary
	Copy table data	L : COPY TABLE DATA	station
	Display Description name	S : DISPLAY DESCRIPTION NAME	
	Set panel status	Z : SET PANEL STATUS	
Others	Display control area	A : DISPLAY CONTROL AREA	Primary station
	Change crosspoint	Q : CHANGE CROSSPOINT	
	Select indication color	S : SELECT INDICATION COLOR	
	Display system status log	W : SYSTEM STATUS LOG	
	Display S-BUS communication	X : DISPLAY S-BUS COMMUNICATION	
	Display table data	Y : DISPLAY TABLE DATA	
	Set unit detectable	Z : SET UNIT DETECTABLE	
	Reset table data to default	K : RESET TO DEFAULT TABLE	Secondary
	Display unit status	V : DISPLAY UNIT STATUS	station
	Display table data	Y : DISPLAY TABLE DATA	
	Select SDI format	Z : SELECT SDI FORMAT	

このマニュアルに記載されている事柄の著作権は当社にあります。

従って、当社の許可なしに無断で複写したり、説明内容(操作、保守等)と異なる目的で本マニュアルを使用することを禁止します。

The material contained in this manual consists of information that is the property of Sony Corporation. Sony Corporation expressly prohibits the duplication of any portion of this manual or the use thereof for any purpose other than the operation or maintenance of the equipment described in this manual without the express written permission of Sony Corporation.

Le matériel contenu dans ce manuel consiste en informations qui sont la propriété de Sony Corporation. Sony Corporation interdit formellement la copie de quelque partie que ce soit de ce manuel ou son emploi pour tout autre but que des opérations ou entretiens de l'équipement à moins d'une permission écrite de Sony Corporation.

Das in dieser Anleitung enthaltene Material besteht aus Informationen, die Eigentum der Sony Corporation sind. Die Sony Corporation untersagt ausdrücklich die Vervielfältigung jeglicher Teile dieser Anleitung oder den Gebrauch derselben für irgendeinen anderen Zweck als die Bedienung oder Wartung der in dieser Anleitung beschriebenen Ausrüstung ohne ausdrückliche schriftliche Erlaubnis der Sony Corporation.